

1.2 Definition of Organizational Structures and Finance Master Data

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General Ledger Overview

General Ledger accounting will assist SCEIS to meet its external accounting and reporting requirements, including fund accounting. Posting of entries in the general ledger are made using the accounts as defined in the chart of accounts. STARS' current balance sheet accounts, revenue accounts, and expenditure objects will be used, mapped as applicable, to create the new general ledger accounts for SCEIS..

The SAP Financial General Ledger will allow SCEIS to:

- Automatically and simultaneously post all sub-ledger items in the appropriate general ledger accounts (through reconciliation accounts)
- Simultaneously update the general ledger and cost accounting areas
- Real time evaluation of and reporting on current accounting data, in the form of account displays, financial statements and additional analyses

The general ledger will serve as a complete record of all non-budgetary and/or non-encumbrance business transactions for SCEIS. It is the centralized, up-to-date reference for the rendering of accounts. Using the general ledger, SCEIS will be able to check any financial transaction in any general ledger account in real-time processing by displaying the original documents, line items, and transaction figures at various levels depending on the options selected in general ledger account master record.

The general ledger also includes the New General Ledger (New GL), which is designed for the purpose of fund accounting.

The following three sub-ledgers will be implemented during the implementation for SCEIS:

- Accounts Payable
- Accounts Receivable
- Asset Accounting

Postings made to the sub-ledgers; Accounts Receivable, Accounts Payable and Asset Accounting, will flow into the general ledger through the use of reconciliation accounts. The sub-ledgers will allow SCEIS to manage the various Customers, Vendors and Assets individually and still have a consolidated amount posted to the respective balance sheet accounts. These balance sheet accounts are called reconciliation accounts. These reconciliation accounts will be identified in the Customer and Vendor Master in case of Accounts Receivable and Account Payable and are tied to the Asset Classes in Asset Accounting.

Overview of Public Sector Accounting

While private organizations usually prepare information using one accounting method and in formats that depict organizational responsibility and organization-wide perspectives, public organizations are normally required to comply with multiple accounting methods and must report not only on organizational responsibility, but also on additional perspectives with multiple facets or dimensions. The most prevalent additional dimensions used are "fund" and "function."

Funds represent separate and distinct fiscal / accounting objects containing a complete self-balancing set of accounts used to segregate cash and other financial resources, together with associated liabilities, residual equities, and related changes. Amounts are segregated by fund in order to perform specific activities or achieve certain objectives in accordance with special regulations, restrictions or limitations. Organizations may establish funds that are at a lower level than those required for external reporting, requiring the use of fund groups. Funds are also classified into fund types, which have distinct accounting and reporting requirements.

Functions are classifications of financial transactions providing information about overall purposes or objectives for each. Similar activities are grouped by function based on high-level objectives for providing major services or accomplishing regulatory responsibilities. Organizations may establish functions that are at a lower level than those required for external reporting, requiring the use of function groups. Functions may also be referred to as programs or activities.

Fund accounting is usually supported using a main financial accounting ledger and various sub-ledgers, which facilitate the reporting of financial activities for various purposes. The main ledger supports cash and accrual-based accounting in compliance with Generally Accepted Accounting Principles (GAAP) which, for most U.S. public sector entities, are the accounting and reporting requirements determined by the Governmental Accounting Standards Board (GASB), as well as common practices that have been adopted and formalized through other organizations such as the Government Finance Officers Association (GFOA) and the American Institute of Certified Public Accountants. Some organizations are also required to follow the accounting and reporting requirements determined by the Financial Accounting Standards Board (FASB).

Fund types represent categories of funds that determine the applicable external accounting and reporting requirements. Specific types of funds, in three broad categories, are recognized by GASB:

Governmental Funds are used to account for governmental-type activities. These funds provide for the receipt, use and position of expendable general government financial resources and related current liabilities.

- A General Fund is used to account for all resources traditionally associated with government that are not required by law or by sound financial management to be accounted for in another fund.
- Special Revenue Funds are used to account for specific revenues (except for expendable trusts or major capital projects) that are legally restricted to expenditure for specified purposes.
- Debt Service Funds are used to account for the accumulation of resources for, and the payment of, general long-term debt principal and interest.
- Capital Project Funds are used to account for financial resources to be used for the acquisition or construction of major capital facilities (other than those financed by proprietary funds and trust funds).

Fiduciary Funds are used to account for money received and held by a government in the capacity of trustee, custodian or agent for individuals, other governmental agencies, and private organizations.

- Expendable Trust Funds are used to account for monies from a donor or outside entity, set aside in a trust, that can be used by the government but which are restricted to a purpose specified by the donor or outside entity.
- Nonexpendable Trust Funds are used to account for monies from a donor or outside entity, set aside in a trust, the income from which may be used by the government. The original principal amount must be maintained and not reduced.
- Pension Trust Funds are used to account for the accumulation, investing and distribution of government employee pension contributions.
- Agency Funds are used to account for assets received by a government in its capacity as an agent for individuals, businesses, or other governments.

Proprietary Funds are used to account for all continuing business-type organizations, activities and related financial resources.

- Enterprise Funds are used to account for the following business-type operations:
- Financed and operated in a manner similar to private businesses where the intent is to recover all costs of providing goods or services be financed or recovered primarily through user charges
- Deemed appropriate by the governing body for which periodic determinations of revenues earned, expenses incurred and/or net income is useful for capital maintenance, public policy, management control, accountability or other purposes.
- Internal Service Funds are used to account for the financing of goods or services provided by one department or agency to other departments or agencies of the government, or to other governmental entities, on a cost-reimbursement basis.

Account groups represent reporting for the financial balances of general governmental long-term assets and long-term liabilities for an entity. Memorandum-type entries are necessary to offset these balances, since these financial transactions have been/will be reported separately and differently within the applicable funds.

- The General Fixed Assets Account Group is used to account for all general government fixed assets, with offsetting entries made to an "Investment in General Fixed Assets" account.
- The General Long-Term Debt Account Group is used to account for all general government long-term liabilities, with offsetting entries made to "Amount Available" and "Amount to Be Provided" accounts.

GASB Statements 34 and 35

For state & local governments and publicly funded colleges & universities, a major change in financial reporting has been mandated by GASB through the issuance of Statements Number 34 and 35. These requirements must be implemented for the following fiscal years by affected public sector organizations, based on the revenue for their fiscal years ending after June 15, 1999:

- Revenue > \$100 Million - Fiscal Years beginning after 6/15/2001
- Revenue >\$10 Million and < \$100 Million - Fiscal Years beginning after 6/15/2002

- Revenue < \$10 Million - Fiscal Years beginning after 6/15/2003

If an affected organization is a component unit of another organization, then it must implement the new reporting requirements at the same time as the affiliated organization. The following entities are affected by these new reporting requirements:

Applicability

GASB Statement Number 34 applies to the following U.S. public sector entities:

- State governments (and component units)
- Local governments (and component units)
 - Villages
 - Towns
 - Cities
 - School Districts
 - Public Utilities
 - Special Districts

GASB Statement Number 35 requires the following U.S. public sector entities to also adopt Statement Number 34:

- Public colleges (and component units)
- Public universities (and component units)

Impact

The impact of GASB 34 and 35 is to require substantially the same accounting methods that were used by previous fund types for separate “fund” financial statements (no longer grouping funds by fund type, but by major vs. other funds) while, at the same time, requiring full accrual reporting of the organization (including recording of assets and infrastructure) in order to report the overall organization on a basis similar to that of private sector organizations.

Functional reporting, not required previously for funds subject to full accrual accounting, is also a requirement for all funds under GASB 34 and 35 and has been expanded to include functional classifications of revenue.

While the new reporting standards only require accrual-based reporting at the overall entity level vs. at the individual fund level, the best approach is to perform accrual accounting at the detailed fund level and aggregate for reporting purposes. This approach also allows fully integrated accrual costing and project accounting based on funding and functional purpose. In addition, because governmental funds are required to be reported on a modified accrual basis, organizations must now reconcile between the modified accrual and full accrual bases.

Changes required under GASB 34 and 35 are listed below.

- Full accrual accounting for all funds
 - New full accrual-based balance sheet titled “Statement of Net Assets” required for entire organization
 - New full accrual-based income statement titled “Statement of Activities” required for entire organization
- Continuation of modified accrual accounting for governmental funds
- Reconciliation of full accrual vs. modified accrual statements

- Expanded accounting and reporting by function
 - o Revenues
 - o Expenses (including asset depreciation and proprietary funds)
 - o Indirect Cost Allocations
 - o Internal Service fund activities are included in governmental activities, not business-type activities
- Accounting and reporting of general governmental infrastructure

General governmental infrastructure must now also be capitalized, depreciated and reported under GASB 34 and 35. While adoption of these standards is encouraged when an entity initially implements GASB 34 or 35, compliance is required for the following fiscal years, based on the revenue for their fiscal years ending after June 15, 1999:

Prospective capitalization

- Revenue > \$100 Million - Fiscal Years beginning after 6/15/2001
- Revenue >\$10 Million and < \$100 Million - Fiscal Years beginning after 6/15/2002
- Revenue < \$10 Million - Fiscal Years beginning after 6/15/2003

Retroactive capitalization

- Revenue > \$100 Million - Fiscal Years beginning after 6/15/2005
- Revenue >\$10 Million and < \$100 Million - Fiscal Years beginning after 6/15/2006
- Revenue < \$10 Million - Fiscal Years beginning after 6/15/2007

Fund Accounting

Fund accounting is the basis for financial accounting and reporting for most US public sector entities. This form of accounting requires the ability to track all financial activities and produce financial statements by individual fund and groups of funds, including balance sheets, income statements and cash flow statements.

In addition, fund accounting also requires recording of specific transactions (including revenues, expenses and assets) by function and function groups, allowing these transactions to be tracked by the governmental or business purpose that they support.

Encumbrances are commitments made to purchase goods or services using existing budgeted funds. These commitments are usually realized within the budget year or shortly thereafter; however, some governments have encumbrances that span multiple fiscal years (for example, multi-year construction contracts).

Sub-ledgers are used to support additional accounting and control requirements required by US public sector entities. Budgetary accounting should be provided in a separate sub-ledger because these processes are usually performed on a basis different than the accounting required by GAAP (budgetary accounting is usually focused on receipt, commitment and use of short-term financial resources, similar to a modified accrual basis of accounting).

Cost and project accounting can be performed for both budgetary and/or GAAP purposes, but is usually done at a more detailed level using different organizational structures which, again, requires separate sub-ledgers.

Transactions performed in sub-ledgers may or may not influence other sub-ledgers or the main financial accounting ledger.

Financial Accounting

The financial accounting ledger is used primarily to support external reporting requirements. Financial statements and much of the required disclosure information for reporting to third parties are prepared using information from this ledger.

Postings to the financial accounting ledger are made using dual entry bookkeeping, requiring balanced postings (debits = credits) by organization, agencies and funds. Because this ledger is the source of external financial information similar to corporate accounting, all “real” financial transactions must be recorded in this ledger. Most governmental entities are required to record these transactions using one of two different accounting treatments:

- Full accrual accounting, which is comparable to accrual accounting done by corporate entities.
- Modified accrual accounting, where long-term financial transactions are not recorded on the balance sheet of a fund but, instead, can immediately impact the financial position of the fund (long-term transactions are, instead, recorded as memo entries within the balance sheets of long-term account groups).

The determination of which accounting basis is appropriate used to be made based on the related fund type. Governmental, expendable trust, and agency funds utilize the modified accrual basis of accounting. Proprietary and pension trust funds use the full accrual basis. However, with the issuance of GASB Statements 34 and 35 (see above), governmental funds must now be able to report on the full accrual basis as well.

In order to make the system as simple as possible from a usability perspective, the best approach for recording modified vs. full accrual transactions is to be consistent and do both bases of accounting for all funds, whether they are governmental or proprietary. Reporting on either basis of accounting is then addressed by segregating modified vs. full accrual when performing fund balance/retained earnings carry-forwards and use of GL account groups. This allows ease of use (for example: users aren't required to select a governmental vs. proprietary asset class when purchasing an asset, just the type of asset being purchased) and full flexibility for management analysis and possible future changes of funds between fund types.

Full Accrual Basis

This basis of accounting requires that all financial transactions with economic value be reported in the same manner similar to corporations. Examples of full accrual transactions that are different than modified accrual transactions are shown below:

- Long-term assets are depreciated over their useful life, with the assets and accumulated depreciation reported on the balance sheet.
- Long-term liabilities are included on the balance sheet, with premium or discount on long-term debt deferred and amortized over the life of the debt issuance.

- Payments of long-term liabilities reduce the balances reported on the balance sheet.
- Investments are adjusted to reflect market value.
- Non-current revenues and expenses are included in the calculation of net income and carried forward into retained earnings.
- Retained earnings are not reserved for encumbrances and inventory.

Modified Accrual Basis

This basis of accounting requires that only financial transactions short-term in nature be reported. Examples of modified accrual transactions that are different than full accrual transactions are shown below:

- Long-term assets are shown as capital expenses when incurred.
- Long-term assets are reported in a separate Account Group, with no depreciation reported.
- Long-term debt issued is shown as another financial source, with premium or discount reported as current financial resources.
- Long-term debt principal repayment is shown as a debt service expense when paid.
- Long-term liabilities are reported in a separate Account Group, with no premium or discount reported.
- Investments are not adjusted to reflect market value.
- Non-current revenues and expenses are not included in the calculation of net income and are not carried forward into fund balance.
- Fund balance is reserved for encumbrances and inventory.

One example of the difference between modified accrual and full accrual accounting is the accounting and reporting for assets. When an asset is purchased, it is recorded for in governmental funds as an expense:

Capital Outlay Expense	Fund 1	Function 1	\$5,000
Accounts Payable – Vendor 12345	Fund 1	No Function Posted	\$5,000

The asset is also recorded in a “General Fixed Asset Account” reporting group:

Asset	Fund 1	Function 1	\$5,000
Investment in General Fixed Asset	Fund 1	No Function Posted	\$5,000

Depreciation over the useful life of assets is not recorded as an expense in the financial records under modified accrual accounting.

Fund Accounting in SAP

Multiple accounting methods are addressed within the mySAP.com Public Sector software solution by properly configuring and integrating the various SAP accounting ledgers. The various SAP accounting ledgers and the accounting method(s) they support are listed below:

SAP Ledger

Financial Accounting
Funds Management
Controlling
Project System
Grants Management

Accounting Method(s) Supported

Full Accrual, Modified Accrual, Cash
Budgetary Accounting
Cost Accounting (Internal Costing, Job Costing)
Project Accounting
Grant Accounting

Automated Reconciliation of Accounting Ledgers and Bases

With the implementation of GASB 34/35, organizations are faced with even more difficulties in preparing GAAP-based financial statements. And, if the Securities and Exchange Commission decides to require quarterly financial statements for organizations that issue debt, organizations with older systems will probably not be able to meet these SEC filing requirements.

The mySAP Public Sector solution, however, provides the capability to maintain all of the information necessary to produce on-demand monthly, quarterly or annual financial statements in accordance with both internal and external reporting requirements. But the system must be properly integrated at the detailed general ledger account level, with recording and accumulation of the information necessary for reconciliation of the different accounting methods within the appropriate modules. The customers must also record all of the appropriate information on a monthly basis, something they are currently only doing at year-end, usually in a different system.

Reporting and automated reconciliation of the different accounting methods is done by determining which GL accounts, cost elements and commitment items are used for which basis of accounting. These accounts/ elements/commitment items are then included or excluded (using grouping functionality) within a report, depending on the basis of accounting used, or reflected in an automated reconciliation report when comparing the different accounting bases. Within Funds Management, any revenue, expense, operating transfers, fund balance/net asset amounts that do not impact the budget should be recorded statistically. Balance sheet accounts should be recorded in Funds Management unless budgeted.

Any differences in revenue, expenditure/expense, operating transfers, and fund balance / net assets must be recorded in separate GL accounts, cost elements and commitment items. In GL and FM, these GL accounts / commitment items are then mapped to separate fund balance/net assets GL accounts / commitment items for balance carry-forward purposes, ensuring that the accumulated differences between the accounting bases can be segregated for reconciliation and reporting purposes within each fiscal year.

Examples:

The following are some examples of how information for each accounting basis is entered, segregated and automatically reconciled within the mySAP Public Sector solution.

All Accounting Bases

Most revenues and expenses are the same under each basis of accounting and are recorded the same way in FI, CO and FM.

	FY 2002	FY 2003
Unreserved Fund Balance	\$ 0	\$40,000 CR
Revenue A	\$30,000 CR	
Revenue B	\$40,000 CR	
Expense A	\$10,000 DR	
Expense B	\$20,000 DR	

Budgetary Basis

Central administration costs are funded budgetary on an arbitrary basis using an estimated amount. This funding is only recorded in Funds Management using the payment transfer transaction and is not recorded in FI or CO, representing a permanent difference when reconciling to FM.

	FY 2002	FY 2003
Unr. Fund Balance-FM Central Admin.	\$ 0	\$10,000 DR
Central Administration Transfer	\$10,000 DR	

Capital expenditures are recorded for both budgetary and modified accrual (recorded in FI, CO and FM).

	FY 2002	FY 2003
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Capital Expenditures	\$12,000 DR	

Fund balance on a budgetary basis:

	FY 2002	FY 2003
Unreserved Fund Balance	\$ 0	\$40,000 CR
Unr. Fund Balance-FM Central Admin.	\$ 0	\$10,000 DR
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Revenue A	\$30,000 CR	0
Revenue B	\$40,000 CR	0
Expense A	\$10,000 DR	0
Expense B	\$20,000 DR	0
Central Administration Transfer	\$10,000 DR	0
Capital Expenditures	\$12,000 DR	0
Budgetary Fund Balance	<u>\$18,000 CR</u>	<u>\$18,000 CR</u>

Modified Accrual Basis

Central administration costs are allocated on an actual basis using CO allocation functionality. These allocations are recorded in FI or CO, and statistically in FM.

	FY 2002	FY 2003
Unr. Fund Balance-CO Central Admin.	\$ 0	\$11,000 DR
Central Administration Allocation	\$11,000 DR	

Short-term accrued absences are recorded in FI and CO, statistically in FM.

	FY 2002	FY 2003
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR
ST Compensated Absences Expense		\$15,000 DR

Fund balance on a modified accrual basis:

	FY 2002	FY 2003
Unreserved Fund Balance	\$ 0	\$40,000 CR
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Unr. Fund Balance-CO Central Admin	\$ 0	\$11,000 DR
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR
Revenue A	\$30,000 CR	0
Revenue B	\$40,000 CR	0
Expense A	\$10,000 DR	0
Expense B	\$20,000 DR	0
Capital Expenditures	\$12,000 DR	0
Central Administration Allocation	\$11,000 DR	0
ST Compensated Absences Expense	\$15,000 DR	0
Modified Accrual Fund Balance	<u>\$ 2,000 CR</u>	<u>\$ 2,000 CR</u>

Reconciliation of Budgetary vs. Modified Accrual Bases (Done using FM Commitment Item Balances)

	FY 2002	FY 2003
Unreserved Fund Balance	\$ 0	\$40,000 CR
Unr. Fund Balance-FM Central Admin	\$ 0	\$10,000 DR
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Revenue A	\$30,000 CR	\$ 0
Revenue B	\$40,000 CR	\$ 0
Expense A	\$10,000 DR	\$ 0
Expense B	\$20,000 DR	\$ 0
Central Administration Transfer	\$10,000 DR	\$ 0
Capital Expenditures	<u>\$12,000 DR</u>	<u>\$ 0</u>
Budgetary Fund Balance	\$18,000 CR	\$18,000 CR

Less: Budget-Basis Only

Unr. Fund Balance-FM Central Admin	\$ 0	\$10,000 DR
Central Administration Transfer	\$10,000 CR	0

Plus: Modified Accrual Basis Only

Unr. Fund Balance-CO Central Admin	\$ 0	\$11,000 DR	(Statistical)
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR	(Statistical)
Central Administration Allocation	\$11,000 DR	0	(Statistical)
ST Compensated Absences Expense	\$15,000 DR	0	(Statistical)
Modified Accrual Fund Balance	<u>\$ 2,000 CR</u>	<u>\$ 2,000 CR</u>	

Full Accrual Basis

Long-term accrued absences are recorded in FI and CO, statistically in FM.

FY 2002 FY 2003

Net Assets-LT Comp. Abs.	\$ 0	\$40,000 DR
LT Compensated Absences Expense	\$40,000 DR	

Depreciation expense is recorded in FI and CO, statistically in FM.

FY 2002 FY 2003

Net Assets-Depreciation Expense	\$ 0	\$ 3,000 DR
Depreciation Expense	\$ 3,000 DR	

Net Assets on a full accrual basis:

FY 2002 FY 2003

Unreserved Fund Balance	\$ 0	\$40,000 CR
Unr. Fund Balance-CO Central Admin	\$ 0	\$11,000 DR
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR
Net Assets-Depreciation Expense	\$ 0	\$ 3,000 DR
Net Assets-LT Comp. Abs.	\$ 0	\$40,000 DR
Revenue A	\$30,000 CR	0
Revenue B	\$40,000 CR	0
Expense A	\$10,000 DR	0
Expense B	\$20,000 DR	0
Central Administration Allocation	\$11,000 DR	0
ST Compensated Absences Expense	\$15,000 DR	0
Depreciation Expense	\$ 3,000 DR	0
LT Compensated Absences Expense	\$40,000 DR	0
Full Accrual Net Assets Balance	<u>\$29,000 DR</u>	<u>\$29,000 DR</u>

Reconciliation of Modified Accrual vs. Full Accrual Bases (Done using FI- New GL Account Balances)

FY 2002 FY 2003

Unreserved Fund Balance	\$ 0	\$40,000 CR
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Unr. Fund Balance-CO Central Admin	\$ 0	\$11,000 DR
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR
Revenue A	\$30,000 CR	0
Revenue B	\$40,000 CR	0
Expense A	\$10,000 DR	0
Expense B	\$20,000 DR	0
Capital Expenditures	\$12,000 DR	0
Central Administration Allocation	\$11,000 DR	0
ST Compensated Absences Expense	\$15,000 DR	0
Modified Accrual Fund Balance	\$ 2,000 CR	\$ 2,000 CR

Less: Modified Accrual Basis Only

Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR
Capital Expenditures	\$12,000 CR	0

Plus: Full Accrual Basis Only

Net Assets-Depreciation Expense	\$ 0	\$ 3,000 DR
Net Assets-LT Comp. Abs.	\$ 0	\$40,000 DR
Depreciation Expense	\$ 3,000 DR	0
LT Compensated Absences Expense	\$40,000 DR	0
Full Accrual Net Assets Balance	<u>\$29,000 DR</u>	<u>\$29,000 DR</u>

Reconciliation of Budgetary vs. Full Accrual Bases (Done using FM Commitment Item Balances)

	FY 2002	FY 2003	
Unreserved Fund Balance	\$ 0	\$40,000 CR	
Unr. Fund Balance-FM Central Admin	\$ 0	\$10,000 DR	
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR	
Revenue A	\$30,000 CR	0	
Revenue B	\$40,000 CR	0	
Expense A	\$10,000 DR	0	
Expense B	\$20,000 DR	0	
Central Administration Transfer	\$10,000 DR	0	
Capital Expenditures	\$12,000 DR	0	
Budgetary Fund Balance	\$18,000 CR	\$18,000 CR	
Less: Budget & Modified Accrual Bases Only			
Unr. Fund Balance-FM Central Admin	\$ 0	\$10,000 DR	
Unr. Fund Balance-Capital Expend.	\$ 0	\$12,000 DR	
Central Administration Transfer	\$10,000 CR	0	
Capital Expenditures	\$12,000 CR	0	
Plus: Modified & Full Accrual Bases Only			
Unr. Fund Balance-CO Central Admin	\$ 0	\$11,000 DR	(Statistical)
Unr. Fund Balance-ST Comp. Abs.	\$ 0	\$15,000 DR	(Statistical)
Net Assets-Depreciation Expense	\$ 0	\$ 3,000 DR	(Statistical)
Net Assets-LT Comp. Abs.	\$ 0	\$40,000 DR	(Statistical)
Central Administration Allocation	\$11,000 DR	0	(Statistical)
ST Compensated Absences Expense	\$15,000 DR	0	(Statistical)
Depreciation Expense	\$ 3,000 DR	0	(Statistical)
LT Compensated Absences Expense	\$40,000 DR	0	(Statistical)
Full Accrual Net Assets Balance	<u>\$29,000 DR</u>	<u>\$29,000 DR</u>	

Master Data Structures in SAP

Master data structures in the ECC system are very important to properly integrate functionality and master data for fund accounting purposes. The following approach to master data must be taken to properly implement enhanced fund accounting within the mySAP.com public sector solution.

Company Code

In the past, prior to the introduction of the split processor, only company codes (legal entities) were balanced, causing some of our customers and partners to associate a company code (legal entity) to a "fund" in order to enable fund accounting. These implementations, however, had a number of issues that made the use of a system configured in this manner quite cumbersome and complex. These issues are documented below.

- Company codes (legal entities) are balanced in the general ledger; however, this balancing is done using inter-company organization clearing transactions (considered cash-type clearing postings, even if the transactions are non-cash items). This means that a true balance sheet cannot be attained if a company code (legal entity) is managing receivables or payables on behalf of another

company code (legal entity). Even the split processor will not split transactions by company code (legal entity).

- To properly state receivables and payables, vendors and customers must be maintained and operational processes performed in each company code (legal entity). This prevents any consolidation of processes and leads to redundant master data.
- Company code-specific GL account information must be maintained in each company code, again leading to redundant master data.
- Users, when entering transactions, must know and select the company code first. The company code will not be defaulted from other master data like cost centers, etc. This introduces substantial complexity in many transactions.
- Complex consolidated financial reporting (legal consolidation) would be necessary if multiple company codes are used.
- Company codes must be configured, with a substantial amount of work necessary to add, integrate, and maintain new company codes in existing functionality, or existing company codes with new functionality.
- There are issues related to Human Resources, if an employee works for more than one company code.

The use of multiple company codes should be avoided if at all possible. We recommend the use of one company code unless there are truly multiple legal entities that have **separate operations and require the issuance of separate W-2s and/or 1099s.**

Business Areas

The split processor has the ability to balance by business area. The split processor replaced the previous business area balancing.

Business areas should represent agencies, lines of business, or locations for which full financial statements are required. If only one agency/line of business/location is determined, it would still make sense to use business areas to allow for the easy addition of future agencies / lines of business and prevent future data migration problems.

Business areas are organizational structures and, accordingly, are hard-linked to organizational structures in other modules. For example, a cost object in Controlling can only have one business area when a posting is made. As a result, the misuse of this object for anything but an organizational view of information will result in the need to create and maintain multiple organizational objects that don't make sense from a responsibility perspective.

Business areas are usually available for reporting in other SAP modules as well, providing a pre-defined grouping of information within these modules without having to rely on maintenance of groupings of other organizational structures (which, if not properly maintained, would result in possible exclusion or misclassification of information).

Funds

The additional enhanced fund accounting integration in Controlling, Project Systems and Asset Accounting allows balancing by FM fund using the split processor. This enhanced functionality also allows balancing within the FI/CO reconciliation process.

Fund accounting requires balance sheets at the fund level, so splitting by the FM fund field is now the approach that should be taken by all public sector customers. This allows full financial statements at the fund level, with the possibility to roll up (in the New GL) by fund type and fund groups.

If splitting by fund is not used initially, there will be serious data migration issues if fund splitting is implemented later.

Functional Area

With the additional enhanced fund accounting integration of functional area in Funds Management, Controlling, Project Systems and Asset Accounting came the ability to better record revenue and expense information by function / mission ("activity") in accordance with GASB 34 and 35 requirements, with the possibility to roll up (in the New GL) by functional area groups.

If the functional area is not used initially, there will be serious data migration issues if the functional area is implemented later. If only one function / mission is determined, it would still make sense to use functional areas to allow for the easy addition of future functions / missions and prevent future data migration problems.

Functional area has been designed only to capture profit and loss information (revenue and expenses). The use of functional area for full financial statement reporting has not been contemplated, nor are there currently any plans to enable this in the future. The functional area field is basically an additional reporting field within the FI / CO / EC modules. It also has its' own reporting table in GLFUNCT. You may capture balance sheet information and profit and loss information by functional area. It is not available on customer and vendor line items.

Components of a Functional Area

- Functional Area – An additional field in FI that can be used for reporting in tables GLFUNCT and GLPCT. It can also be added to any SPL tables that are created for reporting.
- GLFUNCT – A special ledger table delivered with SAP for reporting with the functional area field. The other fields available in table GLFUNCT for reporting are the company code, account number and business area.
- Cost of Sales Substitution – This substitution may be used for determining the functional area value for postings in FI. This does include integrated postings from other modules. It does not include balance sheet postings.

An example of a functional area is as follows:

- ABC company needs an additional reporting element in profit center accounting for their profit and loss statements. The field is only needed on cost related transactions. The field should be equal to the cost center category field on the cost center master record. Some of the cost center categories are: Development, Administration, Manufacturing, and Human Resources.
- To accomplish this requirement, ABC company can set up the functional area field and populate it on profit and loss accounts via the cost of sales

accounting substitution. When setting up the functional area values they MUST equal the values of the cost center categories for the cost center master records. Ledger 0F on table GLFUNCT will not need to be activated since reporting will be done on table GLPCT instead. The field status variants will not need to be activated since the functional area field will be populated by the cost center category field from the cost center master. It will not be manually input in this scenario.

Grants

The additional enhanced fund accounting integration of grant in Controlling, Project Systems and Asset Accounting has the ability to balance by grant using the split processor and also within the FI/CO reconciliation process. If a complete balance sheet is required at the grant level, then grant and partner grant should be added to the split processor method being used for fund accounting (this is currently a slight modification).

If splitting by grant is not used initially, there will be serious data migration issues if grant splitting is implemented later.

GL Accounts (FI) / Cost & Revenue Elements (CO/PS) / Commitment Items (FM)

These should represent the categories or classifications of assets, liabilities, revenues, and expenses necessary for internal and external reporting. You should not use GL accounts to capture information on areas of responsibility, functions / programs / activities, or characteristics that should be represented using other master data structures.

GL accounts should be hard-linked to commitment items using the FM derivation tool and activating binding so that the commitment item cannot be overwritten during postings (should be a 1:1 link between GL accounts and FM commitment items). The commitment item linked to the GL account determines how (or if) the posting updates Funds Management (postings can be reflected against the FM budget, postings can be reflected statistically for reporting and reconciliation purposes, or postings can be set not to update FM at all).

Revenue and expense GL accounts are also hard-linked to primary cost and revenue elements to reflect these postings in CO and PS. If allocations of revenues are required, revenue GL accounts should be linked to cost elements (which are real) and not as revenue elements (which are statistical). Secondary cost elements are usually hard-linked to commitment items (see the exception described below) using the FM derivation tool and activating binding so that the commitment item cannot be overwritten during postings (should be a 1:1 link between GL accounts and FM commitment items). The commitment item linked to the secondary cost element determines how (or if) the posting updates Funds Management (postings can be reflected against the FM budget, postings can be reflected statistically for reporting and reconciliation purposes, or postings can be set not to update FM at all). Through the FM derivation tool, a rule can also be created that changes the commitment item linked to the secondary cost element for those cases where costs are moved between fund types and the credit must be shown in FM as revenue.

CO cost postings that cross company codes, business areas, funds and functional areas are configured to update GL accounts in FI through the FI/CO reconciliation ledger. Through the FM derivation tool, a rule can also be created that changes the GL account to a revenue account during the FI/CO reconciliation ledger processing

for those cases where costs are moved between fund types and the credit must be shown in FI as revenue.

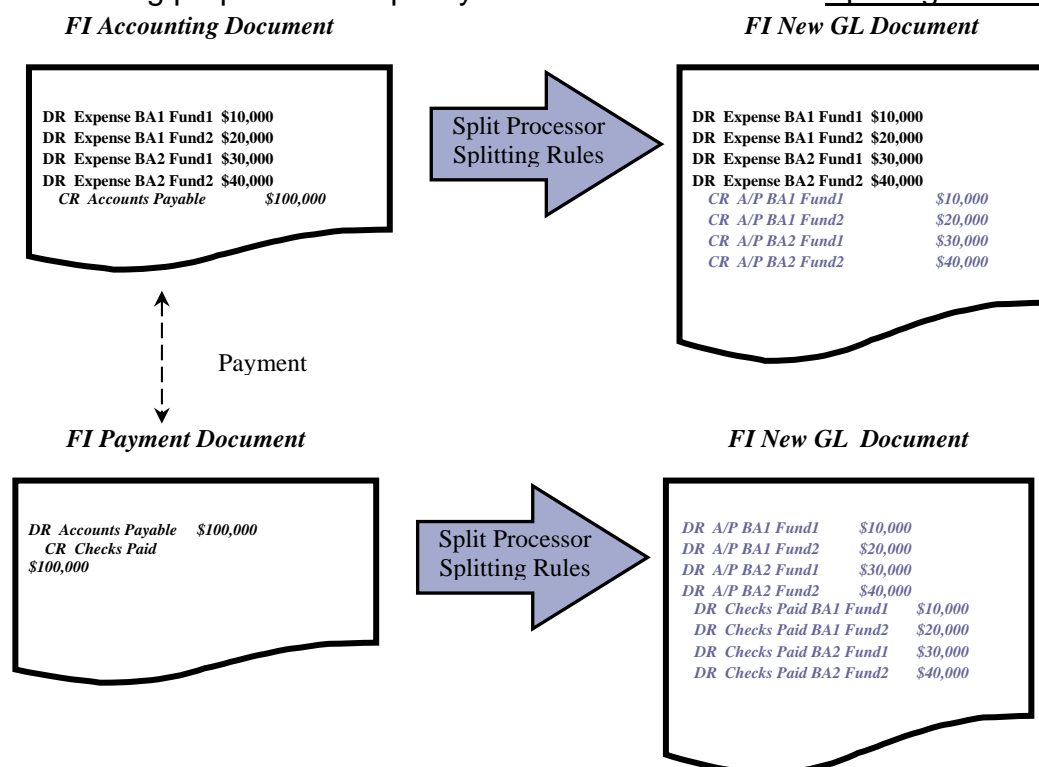
Cost Objects (CO/PS) / Funds Centers (FM)

These should represent the internal organizational responsibility units, at the lowest level necessary for each module, responsible for expenses. Cost objects (cost centers, orders, WBS elements) should be hard-linked to funds centers using the FM derivation tool and activating binding so that the funds center cannot be overwritten during postings (can be 1:1, but it is preferable to link many cost centers to one funds center if budgetary control is performed at a higher level in FM). Other fields (e.g., fund, functional area) can be linked as defaults to cost objects or funds centers through the FM derivation tool, but if organizational units are multiple-funded and/or support multiple functions, then the fund and/or functional area should be able to be overwritten during postings. Cost objects and funds centers should not be used to capture information on funding, functions / programs / activities, or characteristics that should be represented using other master data structures.

Cost objects should also be used for non-cost postings. Revenues should be posted using cost objects and cost elements (instead of revenue elements) to facilitate GASB 34/35 functional reporting, as well as internal organizational allocations and reporting, without adding the complexity (and redundancy) of profit center accounting. GL postings to balance sheet accounts should also be configured to accept cost objects when making postings (turning off the CO error message) in order to simplify fast entry and provide for easy defaulting of other fields (business area, fund, funds center).

Split Processor

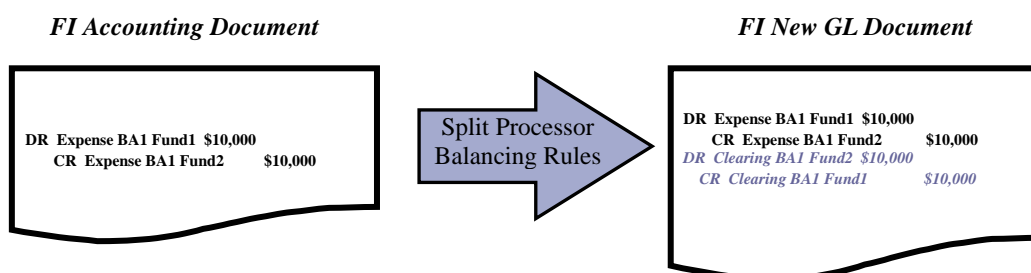
As an accounting document is posted within the mySAP General Ledger, a New GL document is created simultaneously, processed through the split processor rules (where additional lines are added that balance the accounting document by business area and fund) and posts to the fund accounting ledger. The split processor for fund accounting purposes can split by business area and fund. Splitting Method



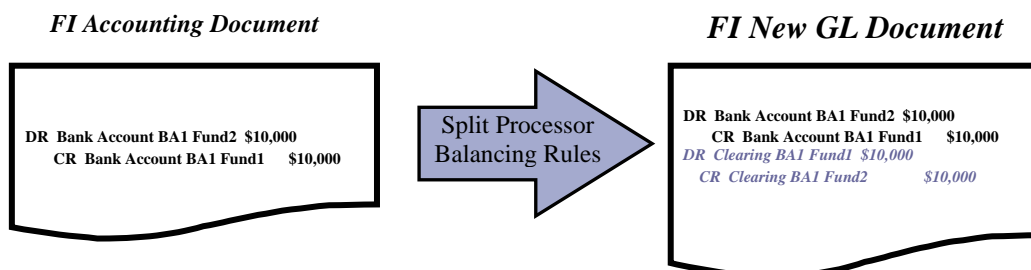
When a document that is split has a subsequent clearing that updates cash accounts (e.g., a check is issued against multi-funded vendor invoices), then the splitting done on the original document is also used for the cash payment upon clearing of the invoice with the payment. If the payment is less than the invoices being paid, an allocation is made based on the splits made to the original invoices.

If no splitting has been configured for document type and item categories within a document type, the document is then balanced using an inter-business area/inter-fund clearing account.

Balancing Method



If absolutely necessary, the inter-business area/inter-fund clearing postings can be offset by posting entries to other GL accounts (bank accounts or actual due to/due from accounts).

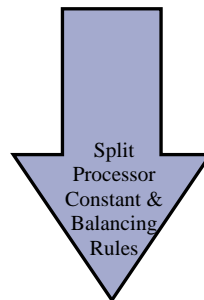


Partner business area and fund are updated during the balancing method in order to track the inter-business area and inter-fund transactions. This allows full reporting of due to/due from transactions to provide for cash balances to be cleared daily and sets the stage for implementation of the “pooled cash and investments” best business practice within the mySAP Public Sector solution.

FI Accounting Document

DR Bank Acct	\$60,000	
CR Revenue BA1 Fund1		\$10,000
CR Revenue BA1 Fund2		\$20,000
CR Revenue BA2 Fund1		\$30,000

Split processor configured to assign constant treasury (t) business area and fund for all bank account postings



Partner business area and fund automatically recorded on each inter-business area / inter-fund clearing line

FI New GL Document

DR Bank Acct	BAt Fundt	\$60,000		
CR Revenue BA1 Fund1		\$10,000		
CR Revenue BA1 Fund2		\$20,000		
CR Revenue BA2 Fund1		\$30,000		
DR Clearing BA1 Fund1		\$10,000	Partner BAt	Partner Fundt
DR Clearing BA1 Fund2		\$20,000	Partner BAt	Partner
Fundt				
DR Clearing BA2 Fund1		\$30,000	Partner BAt	Partner Fundt
CR Clearing BAt Fundt		\$10,000	Partner BAI	Partner
Fund1				
CR Clearing BAt Fundt		\$20,000	Partner BAI	Partner

Treasurer's Business Area / Fund

Bank Account	\$60,000DR
Clearing	\$60,000CR
Balance	<u>- 0 -</u>

Owned by Agencies

BA 1	\$30,000
BA 2	\$30,000
	<u>\$60,000</u>

Owned by Funds

Fund 1	\$40,000
Fund 2	\$20,000
	<u>\$60,000</u>

Postings will be made in the New GL tables to record all accrual-based and cash-based information for fund accounting. This includes modified accrual, full accrual and cash information balanced by both business area and fund, allowing for full financial statements by individual business areas and/or funds, or groups of business areas and/or funds. All postings to the New GL must be made through normal FI documents in order to ensure reconciliation with the General Ledger. **DO NOT** configure the system to allow direct postings to the New GL tables (unless needed for the initial migration to the Split Processor from the General Ledger)!

Because the split processor creates additional lines for inter-business area and inter-fund clearing postings, splits lines for business area and fund splitting, and/or populates the business area and fund fields when they were not included in the original coding block. The General Ledger will not contain complete information for fund management accounting because of clearing postings when invoked. As a result, the information in the General Ledger view must only be used to report at a company code level (e.g., for overall bank account reconciliation purposes). All funds accounting reporting must be done using the New GL split view (or values extracted to BW). This means that reports must be designed by each project team for fund accounting purposes (using Report Writer / Painter, BW or ABAP for balance reporting, ABAP for detailed line item reporting).

Fund type and partner fund type are included in the New GL tables for derivation purposes; however, **DO NOT** post fund type directly in the tables. Fund groups should be used for reporting purposes, which provides the most flexibility to the customer. If fund type reporting is truly required, perform this type of reporting using ABAPs and pulling the fund type from the fund master data. This prevents posting errors in the New GL tables due to mis-assigned fund types (contrary to what the customer says, this **WILL** happen! and then how do they correct it?) and allows easy reclassification of fund types just by changing the fund type on the fund master.

Below is an example of the accounting information included in the New GL tables to produce both modified and full accrual financial statements in accordance with Generally Accepted Accounting Principles, based on GASB standards. The General Ledger view only contains fully balanced financial information by company code. The New GL split view contains fully balanced financial information by company code, business area and fund.

Cash	\$9,000DR Ccode1 BA1 Fund1	\$9,000DR Ccode1 BA1 Fund1
Operating Revenue	\$9,000CR Ccode1(blank)(blank)	\$9,000CR Ccode1 BA1 Fund1
Operating Expenses	\$1,000DR Ccode1 BA1 Fund1	\$1,000DR Ccode1 BA1 Fund1
Accounts Payable	\$1,000CR Ccode1(blank)(blank)	\$1,000CR Ccode1 BA1 Fund1
Transfers Out	\$2,000DR Ccode1 BA1 Fund1	\$2,000DR Ccode1 BA1 Fund1
Transfers In	\$2,000CR Ccode1 BA1 Fund2	\$2,000CR Ccode1 BA1 Fund2
Inter-fund Clearing	(nothing posted)	\$2,000CR Ccode1 BA1 Fund1
Inter-fund Clearing	(nothing posted)	\$2,000DR Ccode1 BA1 Fund2
ST Compensated Absences Expense	\$1,000DR Ccode1 BA1 Fund1	\$1,000DR Ccode1 BA1 Fund1
ST Compensated Absences Payable	\$1,000CR Ccode1(blank)(blank)	\$1,000CR Ccode1 BA1 Fund1

General Ledger

New GL

Business Blueprint
State of South Carolina Blueprint GAP


LT Compensated Absences Expense	\$2,000DR	Ccode1 BA1 Fund1	\$2,000DR	Ccode1 BA1 Fund1
LT Compensated Absences Payable	\$2,000CR	Ccode1(blank)(blank)	\$2,000CR	Ccode1 BA1 Fund1
Capital Outlay	\$5,000DR	Ccode1 BA1 Fund1	\$5,000DR	Ccode1 BA1 Fund1
Investment in General Fixed Assets	\$5,000CR	Ccode1 BA1 Fund1	\$5,000CR	Ccode1 BA1 Fund1
Fixed Assets	\$5,000DR	Ccode1 BA1 Fund1	\$5,000DR	Ccode1 BA1 Fund1
Cash	\$5,000CR	Ccode1(blank)(blank)	\$5,000CR	Ccode1 BA1 Fund1
Depreciation Expense	\$1,000DR	Ccode1 BA1 Fund1	\$5,000DR	Ccode1 BA1 Fund1
Accumulated Depreciation	\$1,000CR	Ccode1 BA1 Fund1	\$5,000CR	Ccode1 BA1 Fund1
<i>Balance Sheets Possible</i>				

Modified Accrual

Cash	\$4,000DR	Ccode1 ONLY!	\$4,000DR	Ccode1 & BA1 & Fund1
Inter-fund Clearing	\$ 0DR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund1
Total Assets	\$4,000DR	Ccode1 ONLY!	\$2,000DR	Ccode1 & BA1 & Fund1
Accounts Payable	\$1,000CR	Ccode1 ONLY!	\$1,000CR	Ccode1 & BA1 & Fund1
ST Compensated Absences	\$1,000CR	Ccode1 ONLY!	\$1,000CR	Ccode1 & BA1 & Fund1
Total Liabilities	\$2,000CR	Ccode1 ONLY!	\$2,000CR	Ccode1 & BA1 & Fund1
Fund Balance	\$2,000CR	Ccode1 ONLY!	\$ 0	Ccode1 & BA1 & Fund1
Total Liabilities and Equity	\$4,000CR	Ccode1 ONLY!	\$2,000CR	Ccode1 & BA1 & Fund1
Inter-fund Clearing	\$ 0DR	(not posted)	\$2,000DR	Ccode1 & BA1 & Fund2
Total Assets	\$ 0	(not posted)	\$2,000DR	Ccode1 & BA1 & Fund2
Fund Balance	\$ 0CR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund2
Total Liabilities and Equity	\$ 0CR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund2

Balance Sheets Possible

Full Accrual

Cash	\$4,000DR	Ccode1 ONLY!	\$4,000DR	Ccode1 & BA1 & Fund1
Inter-fund Clearing	\$ 0DR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund1
Fixed Assets	\$5,000DR	Ccode1 ONLY!	\$5,000DR	Ccode1 & BA1 & Fund1
Accumulated Depreciation	\$1,000CR	Ccode1 ONLY!	\$1,000CR	Ccode1 & BA1 & Fund1
Total Assets	\$8,000DR	Ccode1 ONLY!	\$6,000DR	Ccode1 & BA1 & Fund1
Accounts Payable	\$1,000CR	Ccode1 ONLY!	\$1,000CR	Ccode1 & BA1 & Fund1
ST Compensated Absences	\$1,000CR	Ccode1 ONLY!	\$1,000CR	Ccode1 & BA1 & Fund1
LT Compensated Absences	\$2,000CR	Ccode1 ONLY!	\$2,000CR	Ccode1 & BA1 & Fund1
Total Liabilities	\$4,000CR	Ccode1 ONLY!	\$4,000CR	Ccode1 & BA1 & Fund1
Fund Balance	\$4,000CR	Ccode1 ONLY!	\$2,000CR	Ccode1 & BA1 & Fund1
Total Liabilities and Equity	\$8,000CR	Ccode1 ONLY!	\$6,000CR	Ccode1 & BA1 & Fund1
Inter-fund Clearing	\$ 0DR	(not posted)	\$2,000DR	Ccode1 & BA1 & Fund2
Total Assets	\$ 0	(not posted)	\$2,000DR	Ccode1 & BA1 & Fund2
Fund Balance	\$ 0CR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund2
Total Liabilities and Equity	\$ 0CR	(not posted)	\$2,000CR	Ccode1 & BA1 & Fund2

Fund types are recorded on the fund master record; however, fund types should not be updated in the New GL tables. The problems with doing this are highlighted below.

If Fund Type is posted in the New GL Tables

07/01/2001: Fund 1 >> Fund Type A (Fund Master Assignment Made)

07/15/2001: Posting: \$1,000 Fund 1, Fund Type A

08/01/2001: Fund 1 >> Fund Type B (Fund Master Assignment Changed)

08/15/2001: Posting: \$2,000 Fund 1, Fund Type B

08/31/2001: Reporting by Fund Type A = \$1,000
 B = \$2,000

If Fund Type is Not Posted in the New GL Tables

07/01/2001: Fund 1 >> Fund Type A (Fund Master Assignment Made)

07/15/2001: Posting: \$1,000 Fund 1

08/01/2001: Fund 1 >> Fund Type B (Fund Master Assignment Changed)

08/15/2001: Posting: \$2,000 Fund 1

08/31/2001: Reporting by Fund Type B = \$3,000

GL Account Balances at Lowest Possible Level

In order to properly use the mySAP Financials functionality, General Ledger accounts must represent types (assets, liabilities, equity, revenue, expense, transfers) of financial postings and must be created at the lowest possible level to capture financial information, both for internal and external reconciliation, analysis and reporting. If created at a higher level or if other dimensions are included in the General Ledger accounts (e.g., function), the customer will have problems using existing and/or future mySAP Financials functionality and will probably have to perform a data conversion in the future. This should be avoided at all costs! Better to have very detailed General Ledger accounts by classification of financial information, since the data will be available and can always be grouped together using General Ledger account groups for higher-level reporting. Integration specialists must review the customer's chart of accounts in detail and compel the customer to include (and continue to include) all detailed accounts necessary to prevent future data migration and reporting problems.

General Ledger account groups for financial reporting using the New GL summary table can be created two ways: (1) generated from General Ledger financial statement versions using the program RGSBIL00 or (2) through set maintenance using the menu path Information Systems→Ad Hoc Reports→Report Painter→Report Writer→Sets→Create to create basic sets using the field name RACCT. Other sets using other fields (e.g., business area) can be created in the same manner and used in report painter and report writer (and BW) reporting.

Below are two examples of the importance of capturing very detailed financial information (by classification of asset, liability, equity, revenue, expense, transfer) via General Ledger accounts to ensure support for future reporting changes.

Detailed Investments

The general ledger team decides that only two investment General Ledger accounts are necessary to record and report investments on their balance sheet. They propose creating two GL accounts: "investments" and "unrealized market value adjustment" to comply with GASB 31. Accordingly, the only available information within the SAP system would be the following:

Investments	\$	363,763,124.85
Unrealized Market Value Adjustment	\$	12,942,027.04
Total Investments (at market)	\$	<u>376,705,151.89</u>

The integration specialist challenges the team to consider recording by type of investment instead, with a market value adjustment account for each type. This will facilitate detailed daily reconciliation with their investment system, which they will be interfacing, as well as provide on-line management analysis and reporting of detailed investment balances and changes in both carrying and market value from day to day. Currently, this reporting is done based on printouts from the investment system, which does not allow for government-wide online access.

In addition, balances in these detailed general ledger accounts can be grouped to provide necessary footnote disclosure information.

	<i>Cost</i>	<i>Mark to Market</i>	<i>Market Value</i>
Investments:			
Repurchase Agreements	\$ 15,248,364.59	\$ 0.00	\$ 15,248,364.59
U.S. Government Securities	\$ 151,914,477.21	\$ 14,495,661.12	\$ 166,410,138.33
Mortgage Backed Securities	\$ 26,845,647.95	\$ 2,189,474.36	\$ 29,035,122.31
Commercial Paper	\$ 7,441,864.88	(\$ 425,196.27)	\$ 7,016,668.61
Corporate Bonds	\$ 45,384,963.18	(\$ 1,111,541.31)	\$ 44,273,421.87
Municipal Securities	\$ 91,026,087.38	(\$ 2,985,365.96)	\$ 88,040,721.42
Common Stocks	\$ 15,334,865.42	\$ 356,647.44	\$ 15,691,512.86
U.S. Gov. Sec. Under Rev. Repo.	\$ <u>10,566,854.24</u>	\$ <u>422,347.66</u>	\$ <u>10,989,201.90</u>
Total Investments	\$ <u>363,763,124.85</u>	\$ <u>12,942,027.04</u>	\$ <u>376,705,151.89</u>

Accounts Receivable Overview

Accounts Receivable is a sub-ledger within Financial Accounting. Accounts Receivable is used to maintain customer records, customer invoices, record customer payments and credit memos, and to create all types of customer correspondence. A variety of reports on customers and receivables is available within the Accounts Receivable submodule.

Accounts Receivable is highly integrated with many of the other areas in SAP. The Sales and Distribution module directly feeds information related to customer sales to AR. When a sales order and/or contract is created and the customer is invoiced, the receivable balance on the customer account is updated with the amount of the sale.

Currently, only Resource Related Billing in the Sales and Distribution module will be implemented to allow Grants Management functionality.

The General Ledger contains a summary of all the receivables detail stored in the AR sub-ledger via a reconciliation account. The reconciliation account is a general ledger master record that is defined in every customer master record. Whenever a posting is made to a customer account, the posting is also made to the reconciliation account defined in the customer master record, thus keeping the General Ledger receivables value equivalent to the Accounts Receivable sub-ledger. Additionally, whenever an invoice is created, the revenue is recognized within the General Ledger. On all of the General Ledger postings, the appropriate Controlling, Funds Management, and Grants Management objects are selected, thus updating those areas as well.

Accounts Receivable also feeds data to the Banking area within SAP. Whenever an incoming payment is recorded and a deposit is made, a posting to the Banking master records within the General Ledger is made to record the incoming monies. When the bank statement is processed those deposit postings are cleared. Accounts Receivable also supplies information to Cash Management. Each customer is assigned a cash management group in the customer master record. Every time a receivable is created for that customer, Cash Management is updated according to the group assigned on the master record. The liquidity forecast within Cash Management will display the impact on SCEIS's liquidity for those receivables.

Accounts Receivable is also linked to Accounts Payable. If a customer is also a supplier, the supplier number can be assigned in the customer master record and vice-versa. SCEIS' current requirement is not to net the receivables with the payables. If SCEIS's requirement changes, the receivables could then be netted with the payables when making payments to its suppliers. A custom report would have to be developed to provide the net calculation.

Accounts Payable Overview

The Accounts Payable application component records and administers accounting data for all vendors including employees. It is also an integral part of procurement, where deliveries and invoices are recorded based on each vendor. The system automatically makes postings to the general ledger component in response to these transactions. In the same way, the system supplies the cash management application component with figures from invoices in order to optimize liquidity planning.

Postings made in accounts payable are simultaneously recorded in the general ledger where different G/L accounts are updated based on the transaction involved (payables, down payments and so on).

Asset Accounting Overview

The Asset Accounting (FI-AA) component is used for managing and supervising fixed assets within the SAP ECC System. In SAP ECC Financial Accounting, it serves as a subsidiary ledger to the FI General Ledger, providing detailed information on transactions involving fixed assets.

In addition to providing the management of assets and their values, asset accounting should offer an organizational structure for assets that reflects the organizational structure of the enterprise. For this reason, the FI-AA component uses the various SAP organizational units. An asset is clearly assigned to these organizational units at any given point in time.

Assets are classified according to various accounting criteria (such as depreciation methods). This classification assists in management-accounting-oriented tasks and in the summarization of asset values in the general ledger. The Implementation Guide (IMG) provides the necessary functions for this in Asset Accounting. As a result of the integration in the ECC System, Asset Accounting (FI-AA) transfers data directly to and from other ECC components. For example, it is possible to post from the Materials Management (MM) component directly to FI-AA. When an asset is purchased or produced in-house, you can directly post the invoice receipt or goods receipt, or the withdrawal from the warehouse, to assets in the Asset Accounting component. At the same time, you can pass on depreciation and interest directly to the Financial Accounting (FI) and Controlling (CO) components. From the Plant Maintenance (PM) component, you can settle maintenance activities that require capitalization to assets.

Traditional asset accounting encompasses the entire lifetime of the asset from purchase order or the initial acquisition (possibly managed as an asset under construction) through its retirement. The system calculates, to a large extent automatically, the values for depreciation, interest, insurance and other purposes between these two points in time, and places this information at your disposal in a variety of forms using the Information System. There is a report for depreciation forecasting and simulation of the development of asset values. The system also offers special functions for leased assets, and assets under construction. The Plant Maintenance (PM) component offers functions for the technical management of assets in the form of functional locations and as equipment. The Treasury (TR) component offers special functions for managing financial assets.

The SAP Public Sector fixed asset best business practice provides for a fully automated asset procurement, receiving and accounting process. GASB 34/35 has made timely asset accounting much more important now that all assets must be recorded and depreciated over the useful life. The trend for public sector organizations to do true cost accounting makes timely recording of assets and useful life depreciation essential as well. With the ability of the Public Sector solution to simultaneously update different accounting sub-ledgers based on master data and transaction integration, it is quite easy to streamline the fixed asset process. The budgetary integration (asset GL accounts linked to FM commitment items) allows full encumbrance control on the assets.

Asset classes should be by type of asset only, not by type of fund (governmental vs. enterprise). This keeps the asset classes in line with the standard SAP definition of assets and prevents problems with reporting and utilization of other asset class functionality. Asset classes are linked to GL accounts in the following manner: Balance sheet reconciliation accounts assigned to real FM expenditure commitment

items; Gain on disposition of assets account for the modified accrual depreciation area assigned to real FM revenue commitment item.

All capital outlay depreciation accounts, all useful life depreciation accounts, and the gain/loss on disposition of assets account for the full accrual depreciation area are assigned to statistical FM expense commitment items. Assets under Construction (AuC) accounts and commitment items must be separated from regular assets. AUC settlement accounts are assigned to statistical FM expense commitment items. GL accounts and FM commitment items must be carried forward into separate GL accounts and commitment items to properly report on beginning fund equity.

Two depreciation areas must be configured: (1) area 01 for modified accrual purposes and (2) area 20 for full accrual purposes. A third depreciation area might be needed if SCEIS decides that depreciation be recorded over a related grant period as well.

In order to properly record gain or loss on disposition of assets using all accounting bases, all depreciation areas must be posted to the General Ledger, with area 01 posted real-time. Asset transactions related to depreciation area 20 will be posted to the General Ledger periodically.

To properly record capital outlay (100% depreciation) and support cost accounting (useful life depreciation), depreciation for all depreciation areas must be posted monthly. Every asset must include the 100% depreciation key to ensure posting of capital outlay for modified accrual purposes. Even though enterprise fund assets do not require the 100% capital outlay depreciation, for simplicity and consistency purposes (e.g., to prevent creating governmental fund vs. enterprise fund asset classes, to facilitate transfers of assets between different types of funds, to avoid having to assign the depreciation keys directly to each asset and prevent difficult to correct mistakes, to allow for flexible comparison reporting of different funds on the different accounting bases, etc.), every asset should be recorded on both the modified and accrual (and grant, if applicable) bases.

In order to ensure organizational and responsibility integrity, prevent errors, and properly record and report on assets by fund and function, FM account assignments must be properly configured in Asset Accounting. This includes not allowing changes to the fund and functional area fields after values have been posted to the asset, which is critical to ensure that the proper financial accounting entry is made (i.e., changes to fund and functional area do not update the General Ledger as does the changes to the business area). If changes need to be made to the fund and functional area fields, the asset must be transferred. Asset account assignment elements are configured as described below.

The cost objects to be used (cost centers, WBS elements, internal orders, maintenance orders) and fund accounting objects (fund, functional area) must be activated ("Active") for inclusion in the asset master records. These objects must be included for balance sheet postings ("Bal. Sheet") and should not allow the objects to be changed at the time of posting ("Agreement"). Statistical cost elements must be created for the balance sheet accounts in order to post the assets to the cost objects.

SCEIS will follow SAP Public Sector best practices with regards to implementing FI-AA. As a result, SCEIS will see improvements in the month-end and year-end processes. Additionally, detailed transactional data will be created to support internal and external reporting requirements.

Bank Accounting Overview

Bank Accounting will be used to handle accounting transactions that SCEIS processes with its banks. It includes functions for electronic bank statement reconciliation, cash journal accounting, and check management.

Bank Accounting is highly integrated with many of the other SAP modules. Banking utilizes the General Ledger to record and track all monies flowing in and out of SCEIS's bank accounts. The Accounts Receivable and Accounts Payable modules directly post incoming and outgoing payments to the banking area. These postings are then reconciled with the electronic bank statement received from the bank.

Banking data is also used by many other areas within SAP. Payroll, Accounts Payable, and Accounts Receivable utilize the bank directory and bank accounts when making payments. Cash Management uses the incoming and outgoing bank postings to help determine SCEIS's cash position.

Cash Management Overview

Cash Management is used to monitor SCEIS's liquidity. Based upon reports within Cash Management, investment decisions can be made.

Cash Management is highly integrated with other areas within SAP. The Banking area directly feeds data related to incoming and outgoing payments to Cash Management. The Banking master records within the General Ledger contain a field for the Cash Management planning level. Thus, every time a posting is made to the Banking master records, Cash Management is updated via the planning level defined in the master record. When viewing SCEIS's cash position, all of the bank postings will be included.

Cash Management also integrates with Accounts Receivable and Accounts Payable. There is a cash management group field on the customer and supplier master records. Whenever a posting is made against the customer and/or supplier, Cash Management is updated with those expected incoming/outgoing amounts via the group defined on the related customer and/or supplier master records. When viewing SCEIS's liquidity forecast, all of the customer and/or supplier postings will be included.

Cash Management is also integrated with Sales and Distribution and Materials Management. Whenever a sales order, purchase requisition, or purchase order is created, the expected incoming/outgoing flows will be reflected on the liquidity forecast.

By combining all of the inputs from the other areas within SAP, SCEIS can gain a better forecast of its liquidity, thus enabling SCEIS to make more informed

investment decisions. Configuration includes payment terms, planning levels for vendors and customers. When a financial posting is generated, the data fields are populated from the customer and vendor master record. These default values can be changed. Careful planning of the payment term definitions and planning levels are required during realization.

Controlling Overview

The Controlling module in SAP provides a tool to manage costs within an organization. In SAP the FI-Financial module is utilized to satisfy reporting requirements to the outside world, and the CO-Controlling module is utilized to meet internal reporting requirements. While the FI module deals with the Balance Sheet, Revenue, and Expense accounts, the Controlling module normally only tracks Revenue and Expense accounts. With the use of cost centers and internal orders, the CO module provides the ability to perform responsibility accounting within an organization.

The primary components of the CO module are:

Controlling Area is the highest organization element within the Controlling module. A controlling area may include one or many company codes, and can handle multiple currencies.

Cost Elements – Within SAP there are Primary and Secondary cost elements. A primary cost element is parallel to a general ledger account in the FI module. Secondary cost elements are used to transfer costs within Controlling. (E.g. Administration Cost Center allocation to Operations)

A *Cost Center* is an organizational unit within a controlling area. Cost centers can represent locations, departments, or other areas of responsibility. Cost Centers are not defined by a time period.

All Cost Centers within a controlling area are organized into a standard hierarchy. The standard hierarchy provides a uniform method for viewing an organization by area of responsibility. The system also provides the ability to create cost centers in alternate hierarchies. This provides the system flexibility to meet reporting requirements as organization evolve. The report specification of the CAFR's reporting groups will assist in the creation of the following alternative hierarchies:

- Cost center group
- Cost element group
- Fund group
- Funds center group
- Commitment item group
- Functional area group
- Grant group

Internal Orders are controlling objects used to monitor cost of short term jobs (e.g., building renovation, health care initiatives, education, etc.). Overhead orders can collect plan and actual costs independently of organizational cost center structures and business processes, enabling continuous cost control in the enterprise. Internal Orders can also be used as investment orders to collect cost that are to be capitalized.

Integration Points for Controlling

- *Human Resources*: The master data for a person and position in HR link directly to the cost center in the CO module.
- *Materials Management*: From the creation a requisition to the receipt of the invoices, the cost center is continually updated with commitments and actual postings.
- *Project Systems*: Integrated planning with the controlling module. Cost reposting between cost centers, internal orders, and WBS elements.
- *Financial Accounting*: As journal entries are posted to the financial ledgers, the corresponding CO object is updated simultaneously.
- *Funds Management*: Organizational budgeting and availability checking, earmarked funds
- *Asset Accounting*: The cost center on an asset master determines where the depreciation expense will be charged.

Project Systems Overview

The successful completion of large scale projects requires detailed planning, coordination and execution. The project manager and controller must have sufficient knowledge to ensure the project is completed on time and on budget. The project must be clearly defined and broken down into clear and manageable tasks. The project systems module in SAP provides all of the tools required to accomplish the above objectives in a fully integrated environment. Project Systems integrates seamlessly with materials management, financial accounting, and the funds management module.

One of the first steps in creating a project is to break down the task into a hierarchy. This hierarchy is the WBS structure. WBS elements can be used as cost collectors for both plan and actual costs. The project system offers the flexibility to allow the posting of actual and plan cost at different levels within the project. For example, in a four level project, plan cost may be allowed only at level two, and actual cost only at level four.

A “network” is used in PS to represent the sequence of activities in a project or the sequence of a single activity within a project. During the life of a project, networks are used as a basis for planning, analyzing, controlling and monitoring schedules, dates, and resources.(such as personnel, machines, materials, and documents). SCEIS’s current requirement is not to use networks.

The project system also has activities and relationships. Relationships are used to link activities together within a network. The relationship control dependencies (e.g. Finish, Start Relationship) to ensure the activities do not conflict with predecessor / successor hierarchies.

A primary use of the project system module in SAP is to manage the cost for capital projects. The cost can then be automatically transferred to the fixed asset module to create a final asset. Project systems integrate seamlessly with each SAP module:

- *Human Resources*: Using the CATS tool (Cross application time sheet), employees can charge time directly to a project via a WBS element or a work order.
- *Materials Management*: From the creation a requisition to the receipt of the invoices, the project is continually updated with commitments and actual postings.
- *Controlling*: Integrated planning with the controlling module. Cost reposting between cost centers, internal orders, and WBS elements.
- *Financial Accounting*: As journal entries are posted to the financial ledgers, the corresponding project is updated simultaneously.
- *Funds Management*: Organizational budgeting and availability checking, earmarked funds
- *Asset Accounting*: Creation of AUC's (assets under construction) and Final Fixed Assets.
- *Plant Maintenance*: Maintenance order postings with settlement to a WBS element

Costs are collected on WBS elements throughout the month from each of these integration points. During the month end process, the costs are transferred to the balance sheet as an Asset Under Construction. Once the project is completed, the final asset(s) is created. Throughout the entire process, the individuals responsible for the funding and the management of the project are able to easily track the project within SAP's standard reporting tools.

Funds Management Overview

The purpose of Funds Management is to budget all revenues and expenditures for individual areas of responsibility, to control future funds transactions in accordance with the distributed budget, and to stop the budget from being exceeded. You can adapt the budget to changes in conditions by entering releases, supplements, returns, and transfers.

Funds Management enables you to:

- Control revenues and expenditures and thus control the funding of business transactions of an organization.
- Closely control your budget, with the following questions in mind:
 - What funds will the areas of responsibility receive?
 - Where do these funds come from (source of funds)?
 - What are the funds used for? (use of funds)
- Control the finances of your organization, by comparing encumbrance and actual values with current budget values.

Budgetary Accounting

Budgetary accounting is used to record, track, control and report on activities impacting financial resources of a governmental entity. Since many organizations are focused on short-term control of financial resources, budgetary accounting is

usually performed in a manner similar to the modified accrual basis of accounting; however, organizations may budget on different accounting bases. The following are typical approaches used for budgetary accounting and control:

- Annual and/or multi-year budgets for expenditures and short-term encumbrance of funds are developed for responsible organizations, by type of expenditure, including fund, function, and/or project dimensions.
- Changes made to original budgets are recorded and reported.
- Expenditures and encumbrances are validated, recorded, and reported against the annual and/or multi-year budgets.
- Annual and/or multi-year revenue estimates are developed by type of revenue, including fund, function, and/or project dimensions.
- Revenues accrued or received are recorded and reported against the annual and/or multi-year estimates.
- Financial resources available for future use (fund balances) are estimated by fund.
- Actual fund balances are recorded and reported against the fund balance estimates.

This budgetary ledger is the source of internal financial information for monitoring and control against the legal budget. Postings to the budgetary ledger are ideally not made using dual entry bookkeeping because the focus is the receipt, encumbrance and expenditure of legally budgeted funds.

Encumbrances are usually treated in a manner similar to expenditures for budgetary accounting purposes; however, encumbrances are usually recorded against the budget at the time a legal encumbrance of funds is made (contract date), not when goods or services are expected to be received (due date). In some cases, encumbrances reduce budgetary fund balance and any differences in the following year are shown as a recovery of unspent funds.

Not all financial transactions are budgeted (for example, many balance sheet accounts are not) and encumbrance amounts are not posted as expenses for financial accounting purposes unless the corresponding goods/services are received.

Public sector budgetary accounting and control are provided in the budgetary ledger of the funds management module. This sub-ledger can be configured to meet the unique budgetary needs of an organization while, at the same time, facilitating the reconciliation of the budgetary vs. accrual ledgers.

Many customers will argue that the information in Funds Management must be the same as the information recorded in FI, CO and PS. This will never be the case, however, as each module is designed for a different purpose. FM is designed to control receipt, disbursement and future budgeting of short-term resources, not to account for a complete set of financial statements (which is the purpose of FI). CO is designed to plan, allocate, and report on the true costs of an organization from an operating year perspective. Of course, fund balances and changes in fund balances in FM must be able to be reconciled to the other modules, which is done through a combination of reporting and recording of statistical revenues and expenses in FM.

Funds Management is the Budget-Basis Ledger

Documents created by other modules (including non-financial encumbrance documents such as purchase orders, funds commitments, etc.) may, if relevant, create additional documents in Funds Management. These FM postings are reflected/validated against the corresponding budget and can be carried forward to a subsequent fiscal year in order to be referenced by an ensuing document.

Postings in FM are not fully balanced (i.e., only those items that are budgeted or to be included in, or reconciled to, budgetary fund balance should be recorded in Funds Management. In the example provided above, only the expense line items would update Funds Management as shown below (since accounts payable is a balance sheet account and is not budgeted):

Expenditure Code (Commitment Item) 476000	Funds Center: ADMIN	Fund: GENERAL
	\$500	
Expenditure Code (Commitment Item) 476100	Funds Center: WATER1	Fund: EN-WS-0001
	\$500	

Prior to implementing additional functionality for functional budgeting and reporting, functional area was not recorded in FM. With the changes made to facilitate functional accounting and control requirements, FM now also includes the function field.

Expenditure Code (Commitment Item) 476000	Funds Center: ADMIN	Fund: GENERAL
	Function: GAF1	\$500
Expenditure Code (Commitment Item) 476100	Funds Center: WATER1	Fund: EN-WS-0001
	Function: GAF5	\$500

Not All Transactions Should Be Posted in FM

Funds Management is designed for budgetary accounting and control of financial resources; many of the offsetting postings to balance sheet accounts are not to be posted (even statistically!) in FM. FM was not designed to produce fully balanced financial statements. It was designed to track and control an organization's budget and related financial resources. In addition, it is used to reconcile financial resources on a budgetary basis with those on an accrual basis, meaning that FM is not used for dual-entry booking purposes.

While many of the offsetting postings to balance sheet accounts are not updated in FM, they can impact postings that do update FM. As a result, all general ledger accounts (even those that do not update FM) must be assigned to a commitment item. Every commitment item contains a financial transaction code and statistical indicator that influences FM postings. The following are the most common financial transactions that are used to influence FM postings:

- 30 = Posted to Funds Management
- 40 = GR/IR (no posting to FM, may influence financial transaction 30 entries if GR/IR update for FM is configured)
- 50 = Clearing (no posting to FM)
- 60 = Offsetting financial transaction 30 entries are posted to FM as value type 54
- 90 = Offsetting financial transaction 30 entries are posted to FM as value type 57 (RFFMS200)

If the statistical indicator is checked for a financial transaction 30 commitment item, then any posting to this commitment item updates FM but does not consume budget (and is posted with a statistical indicator); however, only amounts that are used to reconcile financial resources (fund balance / net assets / selected operational reconciliations) should be posted to FM statistically: not everything!

The following are examples of postings that should not update Funds Management.

		FI-GL	FI-FM
<i>Invoiced Revenues</i>	<i>Receivables</i>	<i>\$10,000DR</i>	<i>no posting</i>
	<i>Revenue</i>	<i>\$10,000CR</i>	<i>\$10,000CR (value type 54*)</i>
<i>Invoiced Expenses</i>	<i>Expenses</i>	<i>\$10,000DR</i>	<i>\$10,000DR (value type 54*)</i>
	<i>Payables</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>Accrued GAAP Revenue</i>	<i>Accr. Rev.</i>	<i>\$10,000DR</i>	<i>no posting</i>
	<i>Revenue</i>	<i>\$10,000CR</i>	<i>\$10,000CR (value type 54, statistical)</i>
<i>Deferred GAAP Revenue</i>	<i>Revenue</i>	<i>\$10,000DR</i>	<i>\$10,000DR (value type 54, statistical)</i>
	<i>Def. Rev.</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>Accrued GAAP Expenses</i>	<i>Expenses</i>	<i>\$10,000DR</i>	<i>\$10,000DR (value type 54, statistical)</i>
	<i>Accr. Exp.</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>Prepaid GAAP Expenses</i>	<i>Prepays</i>	<i>\$10,000DR</i>	<i>no posting</i>
	<i>Expenses</i>	<i>\$10,000CR</i>	<i>\$10,000CR (value type 54, statistical)</i>
<i>Assets Received/Invoiced</i>	<i>Assets</i>	<i>\$10,000DR</i>	<i>\$10,000DR (value type 54*)</i>
	<i>Payables</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>Inventory Received</i>	<i>Inventory</i>	<i>\$10,000DR</i>	<i>\$10,000DR (value type 54*)</i>
	<i>Payables</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>Inventory Invoiced/Paid</i>	<i>Payables</i>	<i>\$10,000DR</i>	<i>no posting*</i>
	<i>Cash</i>	<i>\$10,000CR</i>	<i>no posting*</i>
<i>Inventory Used</i>	<i>Expense</i>	<i>\$10,000DR</i>	<i>\$10,000DR</i>
	<i>Inventory</i>	<i>\$10,000CR</i>	<i>\$10,000CR</i>
<i>Revenue Received</i>	<i>Cash</i>	<i>\$10,000DR</i>	<i>no posting*</i>
	<i>Receivables</i>	<i>\$10,000CR</i>	<i>no posting*</i>
<i>Paid Expenses/Assets</i>	<i>Payables</i>	<i>\$10,000DR</i>	<i>no posting*</i>
	<i>Cash</i>	<i>\$10,000CR</i>	<i>no posting*</i>
<i>Transfer Cash Between Bank Accounts</i>	<i>Cash</i>	<i>\$10,000DR</i>	<i>no posting</i>
	<i>Cash</i>	<i>\$10,000CR</i>	<i>no posting</i>
<i>FI/CO Reconciliation Ledger Posting</i>	<i>Expense</i>	<i>\$10,000DR/CR</i>	<i>no posting</i>
	<i>Clearing</i>	<i>\$10,000CR/CR</i>	<i>no posting</i>

* Original revenue or expense posting converted to value type 57 if RFFMS200 is used in FM (NOT recommended)

Budgetary Accounting and Control in Funds Management

Funds Management is the only module that can truly account for budgetary resources and control spending within budget amounts for most public sector organizations.

In the past, Controlling and Project System consultants have caused problems in public sector implementations because they have led the customer to believe that all of their budgetary requirements are fulfilled through CO and PS. While it is true that internal orders and projects offer active availability control, the following are key public sector accounting and budgetary control issues that can only be addressed by using Funds Management:

- Budgetary fund accounting, control and reconciliation
 - Balance carry forward of actual, unspent, available budgetary resources (fund balances)
 - Reconciliation of actual fund balances (budgetary vs. modified accrual vs. full accrual)
 - Carry forward and tracking of residual budget from prior years
 - Budgeting and reporting of beginning and ending unspent fund balances
- Active availability checking (on-line, real-time budgetary control)
 - Organizational (non-order, non-project) spending
 - Specific funding sources
 - Functional spending (functional area field)
 - Programmatic spending (funded program field in ECC Enterprise)
 - Higher-level expense classifications (commitment items)
 - Multiple availability controls
 - Payment budget
 - User-defined availability control ledgers (ECC Enterprise)
- Budgetary control of encumbrances
 - Based on posting dates (vs. projected delivery dates in CO / PS)
 - Carry forward and tracking of related budget from prior years
 - Encumbrance review and management (ECC Enterprise)
- Budgeting and control of fixed asset purchases
- Budgeting and control of inventory purchases
- Budgetary accounting and reporting on a cash basis (RFFMS200)
 - Only if absolutely necessary (not all Financial Accounting transactions are supported)!
 - If cash by fund is the only requirement, use split ledger!
 - Consider an ABAP solution instead!

Grants Management Overview

The Grants Management (GM) component is designed to provide public sector organizations and bodies engaged in higher education or research with an integrated tool they can use to:

- Plan, budget, identify, obtain, and record all funding related to grants received

- Plan, budget, identify, obtain, schedule, perform, and record the tasks and activities related to managing the sponsored programs and furthering the sponsor's and organization's objectives
- Differentiate between eligible and ineligible costs
- Bill and record sponsor amounts
- Record and report all related costs, revenues, and required statistical information

SAP Grants Management helps you manage sponsored programs, such as grants, contracts, and cooperative agreements, from pre-award administration to post-award management and reporting. You maintain master data for the sponsors of an organization, which in turn relates its financial structure to the financial and administrative requirements of the sponsor.

This means that you don't have to compromise your organizational structures or financial reporting to meet the administrative and financial requirements of your sponsors. Grants Management also provides solutions unique to sponsored program management, such as budgeting, cost sharing and matching, billing, and indirect cost and overhead calculation, as well as closing out awards.

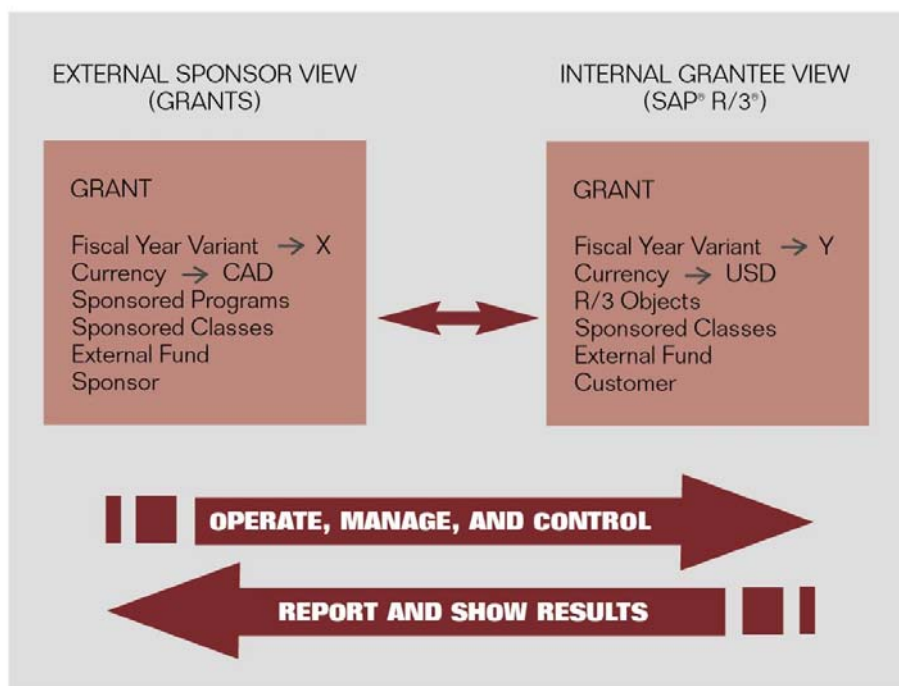


Figure 4-1: Grants Management External and Internal Views

In keeping with SAP's fundamental principal of openness and integration, Grants Management works in an integrated fashion with Logistics, Financials, and Human Resources. Grants Management also takes advantage of such SAP tools as workflow, records management, and schedule management.

Grants Management Processes

Some of the processes defined in Grants Management are:

- Planning of revenues and expenses involved in the managing of grants

- Defining of internal and external budget funding sources, and checking the availability of funds on the budget item level
- Carrying out control postings
- Relating sponsor requirements to the financial structures of the grantee organization
- Providing billing solutions
- Calculating of indirect and overhead costs
- Managing of grant-related documentation and transactions
- Automating close-out procedures
- Assigning responsibilities and authorizations
- Defining workflow activities

Integration within ECC Enterprise

Grants management is integrated with the following components of ECC Enterprise:

- *Human Resources*: Planning of position management, travel, time, and expenses
- *Materials Management*: Purchase requisitions, purchase orders, goods receipt/goods issue, invoices
- *Controlling and SAP Project System*: Proposal and application planning, internal cost allocations, and postings
- *Financial Accounting*: Accounting documents in all ledgers
- *Funds Management*: Organizational budgeting and availability checking, earmarked funds
- *Asset Accounting*: Depreciation and asset details
- *Plant Maintenance*: Maintenance order postings

Integration with CO, PS and Funds Management

During the grant proposal phase, you can transfer planning data from Controlling and the Project System to Grants Management. When funding from the sponsor is received, you can update the grant budget and then transfer it to Funds Management. Transferring budget data between ECC Enterprise components eliminates the need for duplicate entries and ensures data accuracy.

In addition to transferring Grant Management budget data to Funds Management, you can check fund availability in both Grant Management and Funds Management.

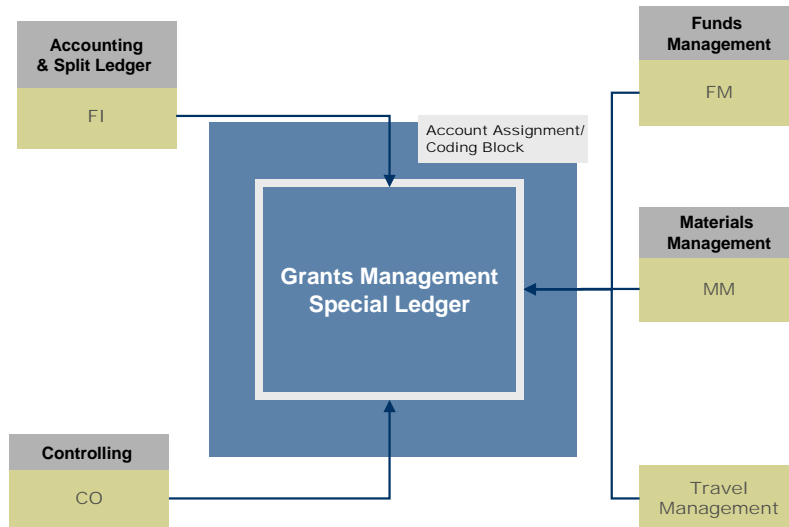


Figure 4-2: Grantee Integration and Updating

In Grants Management, you use the grant budget to maintain spending rules and tolerances and to control postings at the sponsored program or sponsored class level. This creates fund availability checks from a sponsor's perspective.

In Funds Management, you maintain availability checking at the fund, funds center, and commitment item level, so you can control funds availability from your organization's and the sponsor's perspective. You can use the two solutions together or independently, depending on your requirements. The flexible nature of availability checking in Grants Management and Funds Management provides you with the ability to address all business requirements.

Integration with SAP Financial and Asset Accounting

In addition, Grants Management maintains its own ledger using the SAP Financial Accounting split ledger technique, which enables you to generate an individual balance sheet per grant. The flow of transactions from other components into Grants Management allows you to view the transactions from the sponsor's perspective based on the grant's administrative guidelines and requirements. This enables you to relate your organization's transactions based on such sponsor and grant criteria as the fiscal year variant and currency.

To help manage equipment purchased and built with sponsor funds, Grants Management makes use of SAP Assets Accounting and SAP Plant Maintenance. Based on sponsor requirements, these components help Grants Management account, track the disposition of, and report on grant assets to meet sponsor guidelines.

Architecturally, Grants Management maintains a separate view of an organization's sponsored program activities and projects. The organization's structures, such as projects, general ledger accounts, cost elements, commitment items, fiscal year, and currency, are linked to the sponsor's projects, cost and revenue categories, budget validity period, fiscal year, and currency.

In this way, you can review your organization's financial activities and transactions for sponsored programs according to a sponsor's requirements, without affecting the integrity of your financial transactions and activities. For example, your organization and your sponsor each maintain their own fiscal years, and the two often differ. This creates administrative and reporting challenges, and organizations must often create custom reports to accommodate the fiscal year differences.

Master Data

The master data used in Grants Management is: sponsor, grant, fund, sponsored program, sponsored class and assignments.

- A *sponsor* is an institution or individual that provides funding to a grantee organization. Strictly speaking, a sponsor can be regarded as a business partner involved with a grantee organization in the sponsoring of programs through business contracts defined as grants.
- A *grant* is the funding instrument that the sponsor provides and that documents the funding agreement between the sponsor and the grantee organization.
- A *fund* is an accounting object containing a complete self-balancing set of accounts, maintaining different types of funding – external and internal – from the grantee organization's perspective.
- *Sponsored programs* are the grantee organization's projects, including the functions, tasks, and funding necessary to meet the objectives of an external organization.
- *Sponsored classes* summarize the sponsor's expense and revenue categories. The sponsored class is used to group expenses and revenues in order to meet the sponsor's reporting requirements.

To support sponsored program accounting and control, Grants Management applies contractual and administrative requirements to a grant based on various combinations of each of the components. These components together correspond to "sponsored objects", which represent allowable posting and budgeting objects, and they also create dimensions for managing, controlling, and reporting.

The grant and sponsor maintain a many-to-one relationship. The grant and sponsored program have a many-to-many relationship to each other: This means that a grant can fund many sponsored programs, and sponsored programs can be assigned to many grants.

Sponsors are assigned funds within a grant master record, and funds are used to distinguish between external and internal financial support for a project. In addition, funds and grants also maintain a many-to-many relationship. In summary, Grants Management master data relationships are adaptable, so that they can ensure many combinations and accommodate a grantee organization's sponsored program administration requirements.

Within a grant master record, the sponsor, sponsored programs, sponsored classes, and funds represent funding provided to the grantee organization. The relationships among these master data components are flexible and support the many combinations needed to satisfy the funding correlation between the grantee organization and its sponsors.

Two SAP tools are available for this:

- *Business Partner*, which contains functionality for the central creation and management of business partner master data. In this way, you can create flexibly linked, centralized, cross-component master data records, eliminating the need to create multiple master data records for external organizations and individuals who conduct business with your organization.
- *Business Data Toolset*, which enables you to customize screens and data elements specific to your organization and comply with sponsored program administrative requirements. In this way, you have flexibility without compromising the ability of your organization to implement routine system maintenance and subsequent upgrades.

Grants

Grant master data supports the sponsored program business process by maintaining details specific to the *pre-award process* – the creation of the sponsor application – and *post-award process* – the administration of the award after a sponsor funds the application.

Here's an example of how the business process and life cycle of a grant work. An employee first creates a project proposal. Next, the organization reviews the proposal, approves it, and determines if external financial support is needed. The organization then creates an application and submits it to the sponsor(s). Once a sponsor approves and funds the project, the organization application becomes an *award*, and the organization is responsible for managing the award according to the financial and administrative requirements of the sponsor.



Figure 4-4: Sponsored Program Administration Business Process

Within the various phases of the sponsored program process, a grantee organization assigns a status to indicate where a grant is in the business process (proposal, application, award, or closed). The status assignment can trigger workflow scenarios to route the grant and related information electronically within the organization for the necessary reviews and approvals during each of the business processes.

For example, an initial project draft begins with the status proposal. If the grantee organization approves the proposal, Grants Management can update the status to *Application*. Additional stages include:

- Sent application: When the organization mails the application to the sponsor
- Rejected application: If the sponsor does not fund the application
- Awarded application: If the sponsor funds the application
- Closed award: When the grant has completed its life cycle

The grant master data and budgeting activities are allowed for the proposal and application planning stages. For the sent application and rejected application stages, you can restrict or block business transactions from being carried out. Thus, during a pre-award phase of a project, you can begin processing the grant based on funding that you anticipate from a sponsor.

Next, at the award level, you should convert the planning budget to the sponsor budget. This allows your organization to begin posting transactions, such as payroll, purchase requisitions, purchase orders, and invoices. Finally, the closed award status suspends new transactions, but allows continued processing of existing commitments according to sponsor administrative guidelines.

Each of these statuses provides you with the ability to view the various stages of the grant during its life cycle while controlling the transactions that your organization can perform during a specific business process.

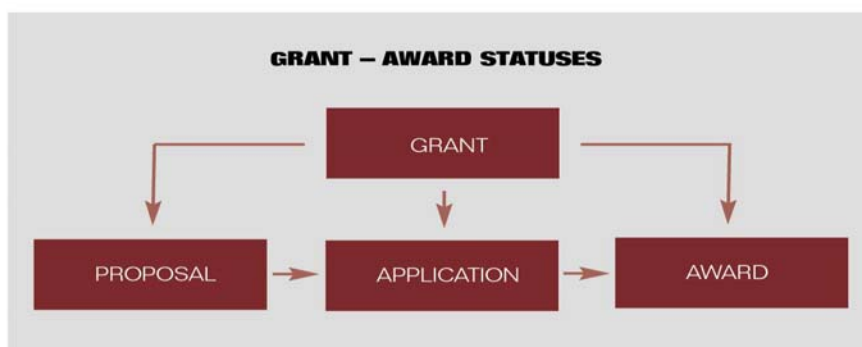


Figure 4-5: Grant Life-Cycle Statuses

Grants Management also contains functions for tracking revisions and updates for both the pre-award and post-award processes. It accomplishes this by assigning versions to the object being modified and maintains a log of these modifications for subsequent review and historical purposes.

The grant also maintains Grants Management business objects, such as the fund (or funding source), sponsored program, and sponsored class. Grants Management transfers default values for these business objects from the sponsor master data and updates the data as needed, based on the requirements specific to the sponsor award.

The sponsored program, sponsored class, and fund control the possible posting combinations, defined in Customizing and used when planning, budgeting, and recording actual postings to the grant. In addition, Grants Management classifies postings as actual or statistical, and blocks postings for processing, and control using validity periods.

Pre-award Costs

Pre-award costs represent the expenditure of funds before you receive funding for a project. In such cases, a sponsor confirms funding of a project prior to receiving

confirmation of funding. Another scenario is that you anticipate a project will receive funding so the project is started, and anticipate reimbursement for outlays prior to the official start of the project. You may need to begin managing a project in advance, and taking into consideration the sponsor's guidelines. Based on such requirements, many organizations and sponsors develop specific rules governing pre-award costs, in particular for:

- Grant life-cycle status
- Posting objects
- Budget release and tolerances
- Billing

You can place restrictions on a grant's posting objects. For example, you can place restrictions on the issue of purchase requisitions, purchase orders, funds reservations, and payments. These types of transactions are controlled using *value types*. In addition, you can control pre-award costs using budget releases and tolerances to limit an organization's expenditures.

- *Budget releases* refer to the budget amounts recorded to an object (such as a grant) that is available for consumption.
- *Tolerances* are used to compare the budget of an object to the amount consumed or posted to that object.

A sponsor can also control billing and reimbursement requests by blocking your ability to submit invoices as a whole or for specific expenses.

Finally, you can use lifecycle statuses to indicate the stage of the grant within an organization's business processes. You can use each of these solutions independently or conjointly to manage the pre-award cost requirements.

Sponsors

In ECC Enterprise, *grant sponsors* are maintained in the form of *SAP Business Partners*. A business partner refers to a natural or legal person or a group of natural or legal persons, who are not part of the organization in question, but with whom a business interest exists.

In the business partner record, you can store all information on organization sponsors. Sponsor master data also provides default values for grant master data. These default values are transferred to the grant master record. You can save or update the default values based on your organization's requirements and the grant's requirements, which means that the sponsor default values only serve a starting point when you create a grant master record.

Examples of grant default data for a sponsor include: sponsored programs and classes, cost sharing details, indirect cost calculation details, fiscal year variants, currencies, as well as the splitting rule to be applied for budgeting and fund detail data.

Grant Types

The *grant type* is a key master data element that allows you to manage grants and to meet both the sponsor's requirements and your own. It is recorded in the sponsor master record, and used in conjunction with the grant to describe and control a grant's behavior. First, if a grant is created and assigned to a sponsor, only grant

types recorded in the sponsor master record can be selected with the new grant master record. In addition, grant type is a customizable feature so you can create as many grant types as needed to classify and describe your organization's grants, such as:

- Classifying grants into categories
- Defining budgeting strategies for grants
- Monitoring the grant using the status function
- Maintaining sponsor rules for indirect costs or overhead posting
- Making use of SAP Records Management templates

Sponsored Program

A *sponsored program* refers to a sponsor's program or project and links it to your internal projects. It is used to group costs to satisfy the sponsor's view and reporting needs. It defines the program to be funded from the sponsor's viewpoint.

Such details as the person responsible, budget objects, funds center, and the functional area are stored in the sponsored program master data. You can also include information on legislative codes to be adhered to. The funds center and functional area create a link between Grants Management and Funds Management, enabling you to relate the sponsor's budget and posting data in Grants Management to budget data in Funds Management.

Within Grants Management, the sponsored program manages all accounting and reporting transactions. Multiple grants can fund one sponsored program, which can be linked to one or more cost objects (such as cost center, internal order, WBS element, and funds center) or one grant can fund many sponsored programs. This many-to-many relationship enables you to maintain your own internal projects independent of the funding sources and still fulfill the sponsor's administrative and reporting requirements.

Grants Management also enables organizations to record sponsored programs in the sponsor master data and to serve as default values for the grant master data. Based on the relationship of the sponsor to a grant, Grants Management can select the sponsored program defaults and import them into the grant from the sponsor master data. These default values, however, merely serve as a starting point when assigning the sponsored programs to a grant.

Sponsored Class

A *sponsored class* categorizes sponsor budget data according to revenues and expenses. It is also used to specify in detail which expenses are relevant for billing and for indirect cost calculation.

When a sponsor funds an application, the award documents typically include a budget summarized by expense category. For example, sponsored classes are used to link GL accounts, cost elements and commitment items to the sponsor revenue and expense categories. A sponsor can fund a grant and provide a budget for personnel, supplies, travel, and equipment expenses, which means that the organization must manage and report the financial activities of the grant based on these budgeted expense categories.

Accordingly, you create sponsored classes for each expense category and assign the sponsored classes in the grant master data. Afterwards, you assign GL accounts and cost elements to the sponsored classes. When transactions are recorded in the GL accounts and cost elements, the sponsored class is derived from the GL accounts and recorded in the Grants Management special ledgers.

This enables you to record financial transactions according to your business requirements and reflect the transactions in the grant's sponsored classes according to the sponsor's requirements. The sponsored class links the sponsor requirements to the financial structures of your organization, providing your organization's transactions in the sponsor view. Also, the integrity of the financial structures of your organization is maintained by deriving the sponsored class for the existing posting objects of your organization.

You can also record sponsored classes, which serve as default values for the grant master data, in the sponsor master data. Based on the relationship of the sponsor to a grant, you can select the sponsored class defaults and import them into the grant from the sponsor master data. These default values, however, merely serve as a starting point when assigning the sponsored programs to a grant.

Budgeting

The new Budget Control System (BCS) delivered as of ECC Enterprise is an important element in controlling grant spending. For more information on BCS, please refer to the corresponding section *Funds Management*.

Budgeting plays a significant role in the administration of sponsored programs, enabling you to fulfill both the sponsor's and the grantee organization's management and reporting requirements. You can record revenue and expense budget data to support both the pre-award and post-award stages of sponsored program management.

Using Grants Management, budget data is entered and maintained from the sponsor's perspective. For example, budget data is entered into the sponsor's currency and the time period as required for the sponsor's reporting requirements. You can also enter budget data for various lifecycle statuses of the grant. That means you can enter budget data for a project's planning phase (proposal status) and then maintain and update it as needed for the remaining phases (application and award).

Grant budgets are entered using the following dimensions: grant, funds, sponsored programs, sponsored classes, and *time slice*. The grant is the primary budgeting object, and the fund is the source of external or internal funding. In addition, the sponsored program identifies a sponsor's programs or projects, and the sponsored class maintains the sponsor's budget at an itemized revenue and expense category level, such as personnel costs, supplies and equipment, as well as revenues.

Organizational Units

Company Code

General explanations

SAP defines a company code (legal entity) as an organizational unit in Accounting which represents a business organization according to the requirements of commercial law in a particular country. Basic data (Name, Address, and Tax ID) for each company code (legal entity) is stored in company (organization) definition. SCEIS is considered one legal entity and will require that one company code (legal entity) be configured.

Requirements/Expectations

SCEIS will require one Company Code.

Naming Conventions

SCEIS company code (legal entity) will be SC01.

Changes to existing organization

N/A

Controlling Area

General Explanations

SAP defines a Controlling Area as an organizational unit within an institution used to represent a closed system for cost accounting purposes. A Controlling Area may include one or more company codes, which must use the same chart of accounts as the Controlling Area. A company code can only be assigned to one Controlling Area.

Requirements/Expectations

SCEIS will require one Controlling Area.

Naming Conventions

SCEIS controlling area will be SC01.

Special Organizational Considerations

The four character code '**SC01**' will be defined as SCEIS' Controlling Area assigned to the company code '**SC01**' and funds financial management area '**SC01.**'.

Changes to existing organization

N/A

System Configuration Considerations

N/A

Financial Management Area

General Explanations

SAP defines a Financial Management Area in ECC as the organizational unit within an institution, used to represent a closed system for budgeting, budget monitoring, encumbrance tracking, and budget execution. A Financial Management Area may include one or more company codes and one or more controlling areas.

Requirements/Expectations

SCEIS requires that only one FM area will be defined and configured.

Naming / Numbering Conventions

The FM area will be SC01.

Special Organizational Considerations

The FM area SC01 will be linked to the Company code SC01 and the Controlling area SC01.

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Business Area

General Explanations

Business areas represent separate areas of operations or responsibilities within an organization. They are balancing entities which are able to create their own set of financial statements for external/internal purposes.

Requirements/Expectations

Each agency will be assigned a Business Area.

Naming / Numbering Conventions

A four character numeric value will be assigned to each business area. The business areas will utilize the existing STARS code plus 0 (e.g., F03 will be F030). Approximately, 120 business areas will be created. The business areas are referenced in Appendix III.

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Functional Area

General Explanations

SAP defines the Functional Area as a master data element that is maintained within the Funds Management (FM) module but is used in FI to classify revenues and expenditures of an organization by function. It is intended to look more at a programmatic dimension of an organization. Functional Areas will be used in FM to create budgets by function. Functional Area is not hierarchical. Functional Area groups are used to summarize revenue and expenditure into mission and functional hierarchies.

The current structure of the functional area is as follows:

- The Functional Area will serve as the means to capture data for internal/external reporting by program and function.
- Budgeting will be done at a combination of the Fund, Fund Group, Fund Center, Commitment Item, Functional Area and Funded Program levels.

Requirements/Expectations

Business requirements for the Functional Area include:

- The ability to provide a level of detail that will allow for appropriate budgetary monitoring/control and internal/external management information (for reporting by area, college and departmental levels).
- The ability to provide separate budget processes for fund groups..

Naming / Numbering Conventions

The numbering for the functional areas will utilize 16 characters and will be derived. STARS code assigned to existing mini-codes will be used (e..g, 210001000000xxxx).

Mini-code logic is as follows:

- Characters 1 and 2 represent Function level
- Characters 3 and 4 represent Sub-Function level
- Characters 5 and 6 represent Process level
- Characters 7 and 8 represent Sub-Process level
- Characters 9 and 10 represent Activity level
- Characters 11 and 12 represent Sub-Activity level
- Characters 13 and 14 represent Task level
- Characters 15 and 16 represent Sub-Task level

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

The Functional Area element will be derived by system by making use of a derivation rule. A combination of funds center and GL account will be used. A Functional Area group will need to be created at a higher level for each Functional Area.

Chart of Depreciation

General Explanations

The main organization structure that needs to be configured in SAP's Asset Accounting module is the chart of depreciation. The chart of depreciation is a list of depreciation areas, arranged according to business and legal requirements. The chart of depreciation allows for the management of rules for valuation of assets. For SCEIS, one chart of depreciation named "SC01" will be created and linked to the company code (legal entity) SC01.

Requirements/Expectations

We will follow SAP's recommendation and copy the standard US chart of depreciation and make the necessary modifications for SCEIS. There will be two books (modified and full accrual).

Naming / Numbering Conventions

The chart of depreciation will be called SC01.

Special Organizational Considerations

Chart of depreciation – A chart of depreciation contains a list of depreciation areas drawn up according to business requirements. The depreciation rules (identified in SAP by depreciation keys) can be defined in the system per depreciation area in the chart of depreciation.

At SCEIS, we will have one chart of depreciation assigned to our company code (legal entity) SCEIS called SC01. SC01 will use the chart of accounts SC01. The same fiscal year variant (defines the fiscal year in SAP) used in the General Ledger will be used in Asset Accounting. The same fiscal year variant (defines the fiscal year in SAP) used in the General Ledger will be used in Asset Accounting.

Changes to Existing Organization

SAP will be the system of record for capital assets and depreciation. Every asset will be recorded in the SAP system during the entire asset cycle as the asset is purchased, depreciated, retired, sold, etc.

System Configuration Considerations

In order to ensure responsibility, integrity, prevent errors and properly record and report on assets by fund and function, account assignments must be properly configured in Asset Accounting. This includes not allowing changes to the fund and functional area fields after values have been posted to the asset. If a fund or functional area must be changed, the asset must be transferred (another asset master must be created and the asset transferred).

The cost objects to be used must be activated (cost centers, internal orders, wbs, etc.) and fund accounting objects must be activated (fund, functional area, funds center, grant) for inclusion in the asset master records.

Asset Class

General Explanations

The asset class structure in the SAP FI-AA module is much more than a grouping of fixed assets, as this serves to define the following:

- The depreciation parameters such as chart of depreciation, useful life and depreciation key – these parameters are applied during the depreciation run as part of periodic processing;
- The general ledger accounts affected by asset transactions – acquisition, transfer and retirement – through the account determination configuration (provides the integration between the GL accounts in the general ledger and asset classes in FI-AA to be used for asset transactions).
- The number ranges that will be assigned to the asset masters will be a sequential number and independent of the legacy system.
- Legacy asset numbers will be referenced in the asset master record.
- The screen layout of the asset master data record.
- The selection parameters for the majority of standard delivered fixed asset reports.

SCEIS will create approximately 40 asset classes that will represent the different groupings of assets SCEIS will be purchasing.

Each asset class will post to a general ledger account to record the acquisition cost for each of the two depreciation areas. In addition to the acquisition general ledger account, general ledger accounts will need to be defined for the depreciation expense account, the accumulated depreciation account and the gain/loss on asset sales accounts for each asset class for both methods of depreciation.

All assets are tracked in an asset sub-ledger. The general ledger cannot be posted directly for any asset transactions. All activities related to assets must be posted to the asset sub-ledger. The asset sub-ledger automatically posts to the general ledger through general ledger reconciliation accounts to reflect any activity that occurs in the sub-ledger. The asset class of an asset will dictate which acquisition account, accumulated depreciation account, depreciation expense account and gain/loss accounts are posted when an activity occurs in the asset sub-ledger.

Each asset class can only post to one acquisition account, accumulated depreciation account and depreciation expense account per depreciation.

A depreciation program is run monthly to post 100% of cost for depreciation area “01” (modified accrual method). The acquisition account for modified accrual will post real time when the asset is received.

There is a separate program that must be run for depreciation area “20” (full accrual method) to post the acquisitions and the depreciation expense that were identified for the asset class. This program will be run on a monthly basis.

When an asset is created, the SAP system will assign an internal number to the asset based on the asset class. The asset number will be required on the purchasing document (requisition or PO).

Requirements/Expectations

Reference Appendix Asset Classes.

Naming / Numbering Conventions

Asset class numbers, asset class descriptions, acquisition general ledger accounts and number ranges will be identified. Asset class numbers will be numeric as referenced in Appendix IV.

Special Organizational Considerations

To create an asset in SAP, it must be created within an asset class. The asset class determines the method of depreciation (straight line) and the useful life of the asset created in that asset class. The asset class also defaults the general ledger accounts when a transaction is posted in the asset sub-ledger. The general ledger accounts for acquisition, depreciation expense, accumulated depreciation and gain/loss on sale of asset are all defaulted from the asset class.

When creating an asset, the system determines which fields are mandatory, optional or suppressed based on the rules configured in the asset class. Fields activated for assignment in the asset master will include the cost center, work breakdown structure ((WBS) for PS), internal order, business area, fund, functional area and fund center. Each asset can be assigned to these organizational units. In addition, each sub-number in an asset can have different organizational assignments. The “cost center” field is where the depreciation expense will be posted.

Changes to Existing Organization

The asset master record will be created in one of three ways:

- during the acquisition process
- settlement of an AuC (asset under construction) from Project Systems
- settlement of an AuC from Internal Orders

System Configuration Considerations

N/A

Depreciation Area

General Explanations

A depreciation area is an area showing the valuation of a fixed asset for a particular purpose (for example, for individual financial statements, balance sheets for tax purposes, or management accounting values). Two depreciation areas have been identified to facilitate the posting and reporting requirements of SCEIS.

The SCEIS chart of depreciation will contain two depreciation areas called 01 (modified accrual) and 20 (full accrual). Depreciation area 01 will be used for modified accrual postings and every asset in depreciation area 01 will be fully expensed in the month of acquisition. Area 20 will be used to capitalize the assets over their useful lives.

Requirements/Expectations

SCEIS will use two depreciation areas.

Naming / Numbering Conventions

The modified accrual depreciation area will be called 01. The full accrual depreciation area will be called 20. The use of the numbers "01" and "20" for depreciation areas are standard usages in the system.

Special Organizational Considerations

None

Changes to Existing Organization

N/A

System Configuration Considerations

Both depreciation area "01" and depreciation area "20" will be assigned to the SCEIS chart of depreciation SC01.

Enterprise Structure

General explanations

The enterprise structure is developed to section employees into specific groups. The main areas of grouping are: personnel area, personnel subarea, employee group, employee subgroup, and payroll area.

Requirements/Expectations

The enterprise structure is a representation of the State of South Carolina as an organization. This is a different way to look at the State of South Carolina from what has previously been available. Within the enterprise structure, there are three major areas: the organization structure, the employee structure and the pay structure. The organization structure is made up of the personnel areas and personnel subareas. These areas are used as the starting point for grouping parts of the State of South Carolina that are treated differently for payroll, time entry and security within the system. Within each personnel area, groups may be further defined by using personnel subareas. These subareas may be used to separate groups based on work schedules, locations, holiday calendars, benefit eligibility and premium payments.

Naming Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute.

Special Organizational Considerations

The Human Resources structure will provide functionality for HR processing and the back end functionality required by the general ledger accounts. However, with an integrated system the need exists to provide solutions that cross over functional areas.

Changes to Existing Organization

The definition of the enterprise structure is the most complex definition in the blueprint phase. The legacy system defined these objects in tables, but were never attached to form a structure.

System Configuration Considerations

Long term maintenance should be very strategic and considerate of all areas affected (payroll, time, benefits and organizational management). As the enterprise structure is configured during realization, SCEIS resources need to be identified as gatekeepers to maintain the structure if it ever changes. These resources will need to coordinate knowledge of each area of HR and understand how a change will affect each of their areas in the configuration section of SAP.

Purchasing Organization

General explanations

A Purchasing organization procures goods and services for several stores and negotiates purchase price conditions with the vendors. It is the business unit that is from an external point of view, legally responsible for all purchasing activities and acts as a data retention level for master data.

The reference for one purchase organization to another purchase organization can be set-up so that the conditions, contracts and purchasing info records can be used together by both organizations.

Requirements/Expectations

SCEIS will require two purchasing organizations. The Agency Purchasing Organization will handle the purchasing activities at the Agency level. The Central purchasing organization will be responsible for state contracts and will serve as a reference purchase organization for the Agency purchasing organization to allow agencies access to the state contracts.

Naming Conventions

SCEIS Agency Purchasing Organization will be SCAP. SCAP will be attached to the SCEIS company code. The Central Purchasing Organization will be SCCP. The name convention was determined by the SRM team.

Changes to existing organization

N/A

Plant

General explanations

An operational unit within a company code or purchase organization that acts as a level of data retention for master data. It can also serve as an inventory management unit.

Requirements/Expectations

Each agency will act as an individual plant.

Naming Conventions

SCEIS plant numbers will be equal to their business area number.

Changes to existing organization

N/A

Storage Location

General explanations

A storage location serves as a primary inventory management unit for warehouse management in which stocks can be managed. All plants must have at least one storage location in which goods may be received.

Requirements/Expectations

Each agency will have one general storage location. Any additional requirements for more storage locations will be addressed with each additional roll-out.

Naming Conventions

SCEIS general storage locations will be identified as 0001. Additional requirements that are identified in the future will have a separate numbering convention that will be identified at that time.

Changes to existing organization

N/A

Purchasing group

General explanations

Purchasing groups are similar to a purchasing department in that it consists of one or more buyers. The buyer is responsible for maintaining master data, control data, and for processing purchase operations.

Requirements/Expectations

Each agency will follow the district buyers currently set-up as buyers for SCAP. ITMO and MMO will purchasing groups associated with SCCP.

Naming Conventions

Purchasing groups will be numbered according to the alpha character associated with the agency. The convention will be ANN- AZZ. Like agencies do share alpha characters, but following the sequencing listed should accommodate all buyers.

Changes to existing organization

N/A

Master Data

Chart of Accounts

General Explanations

A Chart of Accounts provides a framework for the recording of values to ensure an orderly rendering of accounting data. The Chart of Accounts is the operative Chart of Accounts and is used in both financial accounting and cost accounting.

The General Ledger Accounts are the structure that store debit and credit values for accounting transactions in the FI module and form the basis for creating balance sheets and statements of revenues and expenditures. There are five types of General Ledger Accounts in ECC - assets, liabilities, fund balances, revenue and expenditures. Asset, liability, and fund balance GL accounts are used in combination with funds to create balance sheets.

Revenue and expenditures GL accounts represent the classification by which revenue or expenditures are recorded by the institution. They will be used in combination with funds and functional areas to create revenue and expenditure statements by fund and function. Revenue and expenditure accounts can be also be further broken down for management accounting purposes in the controlling module.

Requirements/Expectations

SCEIS will only use one chart of accounts – SC01. Company Code (legal entity) SC01 and Controlling Area SC01 will be assigned to Chart of Accounts SC01.

Naming / Numbering Conventions

SCEIS will use all ten digits for the general ledger (GL) accounts. The GL account numbers should be as follows:

- 1000000000 - 1999999999 Assets
- 2000000000 - 2999999999 Liabilities
- 3000000000 - 3999999999 Fund Balances
- 4000000000 - 4999999999 Revenues
- 5000000000 - 5999999999 Expenses
- 6000000000 - 6999999999 Operating In TBD
- 7000000000 - 7999999999 Operating Out TBD
- 8000000000 - 8999999999 Miscellaneous Reserve TBD
- 9000000000 - 9999999999 Conversion TBD

SCEIS' requirement is for multiple reconciliation accounts for receivables (e.g., IDTs, external customers, etc.) and payables.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the numbering and naming conventions.

System Configuration Considerations

N/A

New General Ledger

General Explanations

Fund accounting is the basis for the financial accounting and reporting for public sector type entities. This form of accounting requires the ability to track all financial activities and produce financial statements by individual fund and group of funds, including balance sheets, income statements and cash flow statements.

In addition, fund accounting also requires recording of specific transactions including revenues, expenses and assets by function and function groups, allowing these transactions be tracked by the governmental or business purposes that they support.

The new general ledger can be updated through the predefined financial activities assigned to the ledger. Most of the financial activities updating general ledger accounts will be posted to this new general ledger simultaneously as transactions are updated to the table.

Requirements/Expectations

SCEIS requires consolidated financial statements that cross over the objects in FI, CO, and FM. In order to facilitate this reporting requirement, the new general ledger will be updated with all the posting objects in one table group. The postings will maintain self balancing check (split processor) by fund and business area objects.

SCEIS will be using the split processor to split on fund, business area, funds center and grant. This will result in increased document line items and may have an impact on performance.

Naming / Numbering Conventions

N/A

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

The new general ledger will be set up with split processor on fund, business area, funds center and grant.

Vendor Master Record

General Explanations

In the SAP System, all business transactions are posted to, and managed in accounts. The vendor master record contains data that controls how business

transactions are recorded and processed by the system. It also includes all the information about a vendor that SCEIS needs to be able to conduct business with that vendor. A vendor can be an individual, a company, or an organization.

The SAP ECC Vendor Master data will include the vendor's name and address, bank information, terms of payment, alternate payees, freight and shipping terms, names and contact information such as that of salespersons and reconciliation accounts from the general ledger.

The Vendor Master data will also need to be maintained in Supplier Relationship Management (SRM). For more details on the SRM Vendor Master Data, please refer to the 1.7 Architect and Specify SRM MM Scenarios.

Requirements/Expectations

A single vendor master file will facilitate the efforts of all of the SCEIS' Purchasing and Accounting areas.

Requirements, in addition to name, billing address and contact information, include but are not limited to the following:

Vendor Types

Vendors will be divided into the following account groups:

- Accounting Vendors
 - H RTP – Employees with internal assignment of seven digits and a number range of 5000000 – 5999999. No partner functions will be allowed.
 - CPDL – One time account for Accounting vendors with external number assignment. Numbers will be Z plus the plant number. There will be one per agency.
 - 0001 – Direct payable vendors with internal assignment of seven digits and a number range of 1000000 – 1999999. No partner functions will be allowed.
- Procurement Vendors – Will consist of three account groups:
 - ZVEN – represents procurement vendors who have separate address(es) for both order placement and payment remits. Number range is internal assignment of seven digits with a range of 2000000 – 2999999. Partner function is VN.
 - ZODA – represents procurement vendors who have a separate address(es) for order placement. Number range is internal assignment of seven digits with a range of 3000000 – 3999999. Partner function is OA.
 - ZREM – represents procurement vendors who separate address(es) for remittance of payment. This could be a lockbox vendor or a different vendor location. Number range is internal assignment of seven digits with a range of 4000000 – 4999999. Partner function is PI.
 - 0007 – Agencies with an external number assignment of ten digits and alphanumeric range of AXXXXXXXXX – ZXXXXXXXXX derived from the funds center/cost center. No partner functions will be allowed. However, purchasing views will be created as needed for agencies.

The vendor master record will pass information on minority vendors to the Minority Business office. Receipt of the certificate number will serve as verification of status. The minority business indicators that will be used are:

- 01 – Traditional male
- 02 – Traditional female
- 03 – White female
- 04 – Hispanic (male and female)
- 05 – DOT Certified Traditional (01 & 02)
- 06 – DOT Certified White females
- 07 – Native American (American Indians, Eskimos & Aleutians)
- 08 – SBA Certified (All Vendors)
- 09 – All Others *(Native Hawaiians & Asian Pacific Americans)

Agencies will be created as both vendors and customers to facilitate intra-company processing. The account group for the vendor master records will be 0007 and KUNA for customer. Further creation of cost-center level master records for vendor/customer in the processing of IDTs (Reference 1.5 Park PR Blueprint Gap) will be handled by the FI team.

Vendor Classification

Vendor classification is a code to which can be used to specify the vendor types such as minority groups. However, SCEIS will not be using Vendor Classification functionality.

Special Taxes

A code to indicate the vendor requires 1099, 1042 or other special tax reporting or processing such as attorneys, corporations, employees, other individuals, medical health corporations, not-for-profit corporations, partnerships, real estate, sub-chapter S corporations, and foreign individuals. These constitute a finer level of granularity within the 1099 classification.

Tax Identification Number

All vendors are required to have a federal tax identification number. One-time vendors may be excluded from this requirement. This element can contain social security number, employer identification number or federal tax identification number – whichever the vendor uses for tax reporting purposes.

Payment

- *Bank Information* – Vendor's Bank information will be captured for the purpose of making ACH payments.
- *Payment Method* – SCEIS will use Checks, Wire Transfers, and ACH as the mode of payment. The Vendor's preferred mode of payment will be captured here.
- *Payment Hold Code* – an element to indicate whether Accounts Payable will issue payment to this vendor or prevent a payment from being made. Payments can be prevented from being made but vouchers will be accrued. The prevention of payment, even though designated by this code, can be overwritten in the payment process. If a single agency has a problem with a vendor, the agency could manually block those invoices for payment.
- *Payment Terms* – Net 30 days will be the defaulted payment term.

- **1099 Box Number** – The Box Number on the 1099 where the payments for the Vendor are most commonly reported. The following 1099 codes are delivered standard:
 - 01 Rents
 - 02 Royalties
 - 03 Prizes, awards
 - 04 Federal income tax withheld
 - 05 Fishing boat proceeds
 - 06 Medical and health care payments
 - 07 1099 - Actual withholding Payment Progm
 - 08 Substitute payments (dividends/interest)
 - 09 Payer made direct sales of \$5000 or more
 - 10 Crop insurance proceeds
 - 11 State income tax withheld

Naming / Numbering Conventions

SCEIS will use external and internal numbering for its vendors. The numbering scheme is detailed above in the vendor types section.

Special Organizational Considerations

Vendor master data in the ECC System will be maintained centrally.

Changes to Existing Organization

Agencies will no longer maintain a separate vendor file. SCEIS will have a single vendor file maintained centrally.

System Configuration Considerations

SCEIS' requirement is for the 1099 code to be captured from information upon entry of the invoice. However, this would require the end user to determine the 1099 code which could lead to inaccuracy in 1099 reporting. With substitution of the 1099 code based on the general ledger account, the accuracy of 1099 reporting would be increased and the end user would no longer be responsible for determining the 1099 code. Each 1099 code will be mapped to a range of general ledger accounts.

The substitution can be accomplished with a user exit. Program RGGBS000 will have to be copied to ZGGBS000. Program ZGGBS000 will then be used to determine the 1099 extended withholding code based on the general ledger account range. This program will be referenced as a user exit in the substitutions. The field will be updated in BSEG - QSSKZ.

The steps to set up the substitution are listed below:

- Use transaction SE38 and copy program RGGBS000 to ZGGBS000
- Use transaction GCX2 to reference application GBLS to program ZGGBS000
- Use transaction SE38 to modify the program to code the user exit for the line level of the FI posting
- Use transaction OBBH to name the substitution
- Use transaction GGB1 create the substitution steps at the line item level
- Test the substitution using transaction code MIRO and/or FB60

Material Master

General Explanations

The conversion of material master records will be accomplished by converting the NIGP codes downloaded into a conversion file. Due to the size of the total file, the conversion file will be scrubbed to reflect South Carolina procurement needs.

Material types that will be used by SCEIS are:

- DEINS - Services
- FOOD - Foods (excl. perishables)
- FRIP - Perishables
- HAWA - Trading goods
- HIBE – Operating supplies
- ERSA - Spare parts
- IBAU - Maintenance assemblies
- ROH – Raw materials

Material classification and characteristics will be used to capture the class and category level information from the NIGP codes. This can be used to help facilitate material searches.

Requirements/Expectations

The NIGP codes will be mapped to standard delivered material groups in SAP.

Naming / Numbering Conventions

The number range for NIGP codes that reflect goods will have an eleven digit number assignment. Some of the NIGP codes end at five or seven digits and will be manipulated to the eleven digit range by adding a numbering sequence, i.e. 000001, 000002, etc. to the existing number.

The number range for NIGP codes that reflect services will have a seven digit number assignment. Some of the NIGP codes end at five digits and will be manipulated to the seven digit range by adding a numbering sequence, i.e. 01, 02, etc. to the existing number.

Special Organizational Considerations

N/A

Changes to Existing Organization

Requests will be processed by a central material master data management group.

System Configuration Considerations

The material master records will be replicated to the SRM system after the initial conversion.

The NIGP file will be maintained in a database. The codes that are part of conversion will be flagged as created. When a user has identified a code as needing

a master record, a process will be developed to allow the user to access the database, populate an online form for the material and then create the master record programmatically in SAP ECC. The database record is updated with the creation flag. This will eliminate duplication of NIGP codes. Future material master records will be created on an as needed basis from the existing NIGP codes that were not part of the initial conversion. The file will be maintained in a separate non-SAP database.

Synchronization will occur on a nightly basis between ECC and SRM for new material master records and changes to existing records.

Asset Master Record

General Explanations

The Asset Accounting module is used for managing and supervising fixed assets with the SAP ECC system. In SAP ECC Financial Accounting, it serves as a subsidiary ledger to the FI General Ledger, providing detailed information on transactions involving fixed assets.

As a result of the integration in the ECC system, Asset Accounting (FI-AA) transfers data directly to and from other ECC modules. When an asset transaction is posted in the Asset Accounting sub-ledger, it is immediately posted to the general ledger through predefined general ledger accounts. The asset class of an asset will dictate which acquisition account, accumulated depreciation account, depreciation expense account and gain/loss accounts are posted when a transaction is posted to the sub-ledger.

The only master data in Asset Accounting is the asset master. In SAP, when an asset master is created, it must be created in an asset class.

Asset classes control the depreciation terms, the number ranges, the general ledger accounts that are posted in the general ledger and the fields displayed during asset creation. Asset classes can be used for reporting and numerous standard reports are available in SAP by asset class. Asset class numbering, description and number ranges will be identified in an appendix.

Requirements/Expectations

The asset master will be created during the creation of the purchase requisition and the asset number will be entered into the purchase requisition. In those cases where an Internal Order or Project is initiated, the asset master record will be created during settlement.

Naming / Numbering Conventions

Each CAFR grouping will have its own number range.

Special Organizational Considerations

N/A

System Configuration Considerations

N/A

Bank Directory/House Banks

General Explanations

SCEIS's bank accounts must be reconciled electronically within SAP. The appropriate master data and configuration must be established in order to automate the reconciliation as much as possible.

Requirements/Expectations

SCEIS will utilize SAP electronic bank statement reconciliation for all bank accounts. The master data required for banking includes the establishment of the U.S. bank directory, house banks, bank accounts, and general ledger accounts. The U.S. bank directory will be loaded into SAP utilizing a file from the Federal Reserve's website <https://www.feddirectory.frb.org/download.cfm>.

Naming / Numbering Conventions

House Banks (5 characters available):

Bank Accounts (5 characters available):

- Revenue = REV
- Accounts Payable = AP
- Expenditure = PR

SCEIS's bank accounts will be identified using their TBD.

General Ledger Accounts: TBD

- 1XXXXXXXXX0 = Main Bank Account
- 1XXXXXXXXX1 = Regular Deposits
- 1XXXXXXXXX2 = Incoming ACH
- 1XXXXXXXXX3 = Incoming Wires
- 1XXXXXXXXX4 = Incoming Credit Cards
- 1XXXXXXXXX5 = Returned Items
- 1XXXXXXXXX6 = Outgoing Checks
- 1XXXXXXXXX7 = Outgoing ACH
- 1XXXXXXXXX8 = Outgoing Wires
- 1XXXXXXXXX9 =

Special Organizational Considerations

N/A

Changes to Existing Organization

New number ranges.

System Configuration Considerations

The above listed house banks and bank accounts will need to be configured in SAP during the Realization phase of the ERP implementation.

Cost Element

General Explanations

Cost Elements are used to classify costs in CO. Primary Cost Elements represent expenditure GL Accounts in CO. They are linked to P&L type GL accounts on a one-for-one basis and have the same number and description. Primary cost elements will be set up for all P&L GL accounts.

Secondary Cost Elements are used for internal allocations within a Controlling Area such as overhead. These Cost Elements are not directly linked to a nominal GL account. However, a placeholder in the a GL account will be created for each secondary cost element.

Requirements/Expectations

Cost Elements must provide sufficient detail to satisfy the management reporting needs of SCEIS, as well as external financial reporting needs, since cost elements will map on a one-to-one basis from a GL account number. Cost Elements must also satisfy budgetary control needs, as the current plan is to map cost elements to commitment items.

A standard cost element group will be built and maintained for reporting purposes. Alternative cost element groups can be built as needed for ad-hoc reporting purposes.

Statistical Key Figures TBD (???)

Naming / Numbering Conventions

Primary Cost Elements will follow the numbering sequence of GL accounts. SCEIS will use all ten digits for the general ledger (GL) accounts. The GL account numbers are as follows:

- 1000000000 - 1999999999 Assets
- 2000000000 - 2999999999 Liabilities
- 3000000000 - 3999999999 Fund Balances
- 4000000000 - 4999999999 Revenues
- 5000000000 - 5999999999 Expenses
- 6000000000 - 6999999999 Operating In TBD
- 7000000000 - 7999999999 Operating Out TBD
- 8000000000 - 8999999999 Miscellaneous Reserve TBD
- 9000000000 - 9999999999 Conversion TBD

Only revenue, expense, and asset G/L accounts will have matching primary cost elements.

Secondary Cost Elements will be defined in the number range. Below is an example.

- 9100000000 - 9109999999 Settlement Cost Elements
- 9120000000 - 9129999999 Allocation Cost Elements
- 9130000000 - 9139999999 Internal Activity Allocations

Secondary cost elements will be used to settle cost from internal orders to cost centers, and to allocate overhead to WBS elements from Facilities and Bond Fund Financial Management cost centers. Secondary cost elements are used to reallocate costs to other controlling objects. Since this is a secondary posting, these cost elements will not be subject to budget checks.

Special Organizational Considerations

None

Changes to Existing Organization

None

System Configuration Considerations

Primary Cost Elements will be configured to match P & L account numbers. Cost Elements will also be created automatically when a GL account number is created. Transaction OKB2 will identify which cost elements are created automatically by the SAP system. Transaction OKB3 will create batch input session to create cost elements. Transaction SM35 will process batch input session.

Each primary cost element will have a matching commitment item in Funds Management.

Cost Center

General Explanations

SAP defines a cost center as an organizational unit within a controlling area that represents a clearly delimited location where revenue and costs occur. Organizational divisions can be based on functional requirements, allocation criteria, physical location and/or responsibility for costs.

Cost Centers, WBS Elements, and Internal Orders are the lowest levels at which costs will be tracked and posted. Whenever revenue or expense is posted in the SAP system, at least one of these cost objects is required.

Requirements/Expectations

A Cost Center can be linked to a company code, a business area, a functional area and a fund center allowing all of these codes to be automatically defaulted when a user enters a Cost Center in a document. Costs and revenues posted to a cost

center can thus be automatically posted to the company code, business area, functional area and fund center linked to the Cost Center.

Cost Centers are organized into a Standard Hierarchy. Every Cost Center reports to a node in the hierarchy. The proposed hierarchy is TBD. The purpose of the hierarchy is to provide the organizational structure for reporting information from the SAP system. A guiding principle is that Cost Centers should be set up for programs that are permanent in nature. This principle has to be reviewed from a SCEIS enterprise perspective. Cost Centers may also belong to additional alternative hierarchies that can also be used by controlling reports.

There will be a one-to-one relationship between Cost Centers and Fund Centers. SCEIS can use Cost Centers to represent all of its expendable accounts except grant accounts and job/project accounts, which may use internal orders.

All cost centers must be assigned to the standard hierarchy.

Naming / Numbering Conventions TBD

Cost Centers will use intelligent numbering to aid the derivation of funds management master data.

Special Organizational Considerations

None

Changes to Existing Organization

End users must be educated on the new structure but utilizing the current unit number should assist in the transition.

System Configuration Considerations

The Cost Centers will match the fund centers. The Cost Center will derive the fund where possible.

Internal Order

General Explanations

SAP defines an Internal Order as an instrument used to monitor costs and, in some instances, the revenues of an organization. A guiding principle is that Internal Orders should be programs that are short-term or finite in nature. Internal Orders can be used for the following purposes:

- Monitoring the costs of short term jobs
- Monitoring the costs and revenues of a specific service
- Ongoing cost control

Requirements/Expectations

SCEIS may primarily use Internal Orders for overhead and projects.

Statistical Internal Orders will be created and maintained by departments to meet their reporting needs. Statistical orders are secondary cost objects meaning any postings to a statistical order, must also be posted to a real CO object (WBS element or cost center). These orders will be used to track program cost for reporting purposes only.

Naming / Numbering Conventions

Internal Order number ranges will be TBD..

Special Organizational Considerations

N/A

Changes to Existing Organization

Since this is a new process, end users will require training to understand proper use of internal orders..

Commitment Item

General Explanations

Commitment Items represent budget classifications of revenues and expenditures in the Funds Management module. Commitment Items are mapped to the GL account in FI and the revenue and cost elements in CO. With this link, transactions posted to the GL account or revenue or cost elements are automatically posted to FM. Commitment Items can also be arranged in a multi-level hierarchy where the top nodes are defined for reporting and/or controlling levels.

The current structure of data elements is as follows:

- Commitment Items will tie to GL accounts for the FM module.
- Cost elements will tie to GL accounts for the CO module.
- Sponsored class will tie with the GL accounts for the Grants module.

Requirements/Expectations

Commitment items represent the grouping of expenditures and revenues within an FM area.

The GL account structure for Revenue and Expenditure items will exactly match the Commitment Item hierarchy.

- Each GL account will be mapped to a Commitment Item (one-to-one match). The Commitment Item number will be the same as the GL account number. The system will derive the Commitment Item automatically from the GL account, for any direct or automatic GL posting (Automatic postings update the GL from sub-ledger accounts).
- Commitment Items will be grouped logically at higher levels. High-level Commitment Items can be budgeted against but do not accept direct postings

of commitments or actual. There are two options to budget check at commitment item group, the following are:

- Derivation rules in BCS
- Commitment Item Hierarchy

To maintain data consistency throughout all SAP modules, commitment item is derived from GL

- Each Revenue and Expense GL account is also mapped to one unique *Commitment Item in FM* (1:1 relationship). Transaction FIPOS (Program PS_CREATE_FIPOS) will be run to generate the commitment items based on the GL account numbers created. If multiple company codes are used, Program RFFMCP01 can be used to copy commitment in GL account from source company code to target company code. Program RFFMWHEREUSED is used to determine the object assignment in the FM derivation tool. The one-to-one relationship facilitates postings to Fund and Fund related objects such as Fund Center, Functional Area.
- Commitment Item category should also match the account group for P&L statements in the general ledger (e.g., if the commitment item category is revenue, do not match to an expenditure account).

Business requirements for Commitment Items include the ability to provide:

- A level of detail that will allow for appropriate internal budgetary monitoring, control and internal/external management information (for reporting by business area, fund).
- Separate budget processes for each fund.
- Information required by Agency code (e.g. commitment item), GASB 34/35 and 39 (fund), and reporting (e.g. functional area).

Recommended Commitment Item settings:

The financial transaction and categories for commitment items in FM should be set as follows:

Note: recommended settings prior to doing a detail review of intended use of G/L accounts, the FM settings should be:

Group	Financial Transaction	Category	Discussion
1	90	1	Cash or Cash equivalent Or 50 not relevant to FM. I.e. not posted/updated in FM. Others: <ul style="list-style-type: none"> • Investments
1	60	2	Accounts Receivable Others: <ul style="list-style-type: none"> • Accrued Interest (2)
2	60	3	Accounts Payable
2	40	3	GR/IR
3	30	2	Beginning fund balances should be loaded and need to be updated in FM with 30/2 for both real (FM balances) and statistical (GAAP only)
4	50	3	Not relevant for FM – Federal and RFFMTOBL GL Commitment

			Transfer Postings - Encumbrances
4	30	2	Revenues – certain CI's should be set as statistical (e.g., some revenue accrued/deferred for external financial reporting purposes) <ul style="list-style-type: none"> Cost element categories recommend making 1 instead of 11 – Cost vs. Revenue, so revenues may be allocated.
5	30	3	Expenses <ul style="list-style-type: none"> Certain CI's should be set as statistical (e.g., depreciation)
6	50	3	Detailed Conversion Accounts – Not relevant for FM.

Commitment item's master records contain important control parameters and should be set up as follows:

- The *financial transaction* categorizes business transactions from the feeder application components (Financial Accounting and Materials Management).
- The *item category* sorts actual/commitment and plan values into revenues, expenditures, and inventory.
- Bank and cash accounts, along with the related clearing accounts that show a cash balance, must have a commitment item with a financial transaction of 90 and item category of 1.
- Commitment items with financial transaction 50 are not relevant to FM (i.e., not posted or updated at all in the FM tables).
- The GR/IR clearing accounts requires a financial transaction of 40 and item category 3.
- The "Invoice" status is based on clearing accounts for customers and vendors and requires a commitment item with transaction 60 and 2 for customers and 3 for vendors.
- GL accounts created for the purpose of recording revenue, expenditure, or fixed assets must be linked to a commitment item with financial transaction 30 and item category of 2 (revenues) or 3 (expenditures).

Naming / Numbering Conventions

Commitment Items will have a one-to-one relationship with the general ledger accounts. Some Commitment Items will be budgeted at a higher level roll-up. The Commitment Item will have ten digits where fund balances will begin with a three, revenue Commitment Items will begin with a four, and expense Commitment Items will begin a five.

- Fund Balances 3000000000 to 3999999999
- Revenues 4000000000 to 4999999999
- Expenses 5000000000 to 5999999999

There will be some Commitment Items (i.e. no corresponding GL) that will be for budget purposes only. However, no actual expenses will be recorded at this commitment item level. The actual expenses will be recorded at a lower level.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

System Configuration Considerations

Commitment Items will be created and will have a one to one relationship with general ledger account and cost element. The following will be taken into consideration when setting up the commitment items:

- Commitment Items will be fiscal year independent
- Define hierarchy variant
- Assign hierarchy variant to FM area
- Define derivation rule to derive Commitment Item from general ledger account
- To generate the commitment item group use transaction code FMRP_CI_SET_HIER.

Fund

General Explanations

SAP defines the Fund as a separate and distinct fiscal/accounting object containing a self-balancing set of accounts used to budget and control costs and to identify source and use of funding. It allows SCEIS to avoid commingling its operating budget with external fund and allows SCEIS to allocate, track, and control external sources of funds separately from its operating budget. Financial data will be separated by Funds so that certain activities can be performed or objectives achieved in accordance with special regulations, restrictions, or limitations. Fund is the key for developing financial statements. Fund is not hierarchical. Fund is stored on the CO cost objects and can be used for CO planning.

In grants, fund represents the source of funding.

- External: Sponsor award amount
- Internal: Grantee's funds and resources (i.e. cost sharing)

Budget will be done with a combination of the Fund, Funds Center, Commitment Item, Functional Area, Grant, and Funded Program.

Requirements/Expectations

SCEIS requires the ability to provide a level of detail that will allow appropriate budgetary control and internal/external management information.

Listed below are the expectations the fund should provide:

- Be able to provide separate budget processes for each fund
- Be able to provide a balance sheet for each fund and fund group
- Provide the required information for GASB 34 (Fund), and reporting (e.g. functional area), A133 for grant reporting, etc.

Naming / Numbering Conventions

The fund will start with the four digit number as follows:

- 1000 – 2999 General Fund
- 3000 – 3999 Earmarked Fund
- 4000 – 4999 Restricted Fund
- 5000 – 5999 Federal Fund

The remaining six are still in question.

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Special Organizational Considerations

The end user must be educated on the appropriate usage of each field and name convention.

Changes to Existing Organization

N/A

System Configuration Considerations

Fund master data will be configured for following areas:

Fund type, an attribute of the Fund master data, will be defined in configuration settings if SCEIS decides to use this field for reporting purposes and for grant accounting. Fund type cannot be created in the standard menu.

Funds Center

General Explanations

SAP defines the Funds Center as an organizational unit within the Funds Management (FM) module. It represents the lowest level area of responsibility for budgetary monitoring and controlling costs by area of responsibility. Funds Centers are arranged in a multilevel hierarchy where a parent-child relationship is defined for reporting and/or controlling levels. For SCEIS, Funds Centers will have a one-to-one relationship with cost centers, thus forming a direct link to the Cost Center. Funds Centers can be grouped together to form Funds Center Groups. Funds Center Groups will be used to provide the organizational structure for reporting information from the SAP system. Budgeting can be done at the fund and funds center level (other dimensions are available). Fund centers can be built from the cost centers and cost center groups.

The current structure of data elements is as follows:

- In SAP, data will be converted to a cost center, internal order, fund, or GL account/commitment item based upon the type of data they are capturing.
- Funds Centers will be derived from the cost center or internal order via the derivation tool with the exception being the budget entry.

Requirements/Expectations

Business requirements for the funds center include being able to provide:

- A level of detail that will allow for appropriate internal budgetary monitoring, control and internal/external management information

Naming / Numbering Conventions TBD

Funds Center will be derived from cost centers and internal orders and will be created based on the organization planning structure and reporting rollup. There will be unlimited reporting rollups to the SCEIS hierarchy.

The numbering for the Funds Centers will be the same as the cost centers. The proposed numbering scheme for a funds center will be 10 digits.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

Funded Program

General Explanations

ECC Enterprise includes a funded program structure in Funds Management for detailed budgeting and expenditure control of lower-level programs without the need to include these structures within the functional area or the organizational funds center structures. This allows for budgetary control on specific projects or programs. The funded program allows for both cross-organizational and cross-functional budgeting, control and reporting on detailed programs and provides for additional integration between Funds Management, Grants Management, Controlling and Project System.

The funded program cannot be directly entered during postings in modules other than Funds Management but, instead, must be derived from other objects (normally cost objects in CO and PS).

Funded program has been designed only to capture profit and loss information (revenue and expenses).

Funded programs are programs within Funds Management (FM) with an operational purpose and defined time frame. They can range from simple activities to complex projects and can cross your organization's fiscal years, funding sources, and organizational units. Examples would include things like the following:

- Facility modernization
- Financial system replacement
- Park beautification
- Street and highway safety

Funded programs enable you to record budget, control postings, and monitor the performance of internal projects.

Funded programs are used mainly as FM account assignment elements, in the same way as funds, funds centers, commitment items, and functional areas are. Budget can be entered for them and monitored in them. You can enter the funded program directly in budgeting, but it can only be used with the new Budget Control System (BCS), not the conventional budgeting function.

When you are using the funded program in integrated postings, it is not possible to enter the funded program directly. It must be derived, using rules specified in the FM derivation tool.

Requirements/Expectations TBD

Naming / Numbering Conventions

Funded programs will be derived based on the fund + cost center combination. Funded program number ranges are TBD.

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

None

Grant (Grantee) Management

General Explanations

SAP *Grants Management – Grantee* enables public sector institutions to meet individual sponsor requirements without compromising their existing financial management and master data. With a strong focus on financial administration, it covers the whole lifecycle of a grant – from internal draft and application to the consumption of funds and the final close-out. Indirect cost calculation and recovery as well as cost sharing scenarios complete the grant accounting scenario.

It is possible to configure and schedule bills and reports, meeting the different sponsors' requirements by completing all tasks on time. By controlling and optimizing use of sponsors' funds, grantees can reduce operational costs they would otherwise have to fund themselves. This ultimately improves the chances of gaining further funding.

SAP defines the Grant as an object used to maintain details which describes the terms and conditions of the funding and administration of a Sponsor's award entered as an organizational unit within the Funds Management (FM) module. It represents lower-level funding instruments used to document, control and report on the results of an agreement made between a sponsor and the organization. A full set of financial statements is possible for each grant.

SAP includes a grant structure to be used as a lower-level funding instrument to document, control and report on the results of the agreement made between the sponsor and organization without the need to include these structures within organization's own internal control structures. The grant allows for both cross-organizational and cross-funding budgeting, control and reporting on a sponsor's programs and provides for additional integration between Funds Management, Grants Management, Controlling and Project System.

Requirements/Expectations

Business requirements for the grant to include being able to provide a level of detail that will allow for appropriate internal budgetary monitoring, control and internal/external management information. Sales organization, sales area, division and distribution channel will be determined in the Grants Management Blueprint.

Naming / Numbering Conventions

Numbering conventions will be determined as part of the Grants Management Blueprint effort.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

System Configuration Considerations

Before you can create grants and awards in Grants Management (GM), you need to perform certain customizing work.

Work through the steps below as required. In each case, the documentation in the Implementation Guide (IMG) contains detailed instructions on what to do.

- **Maintain Grant Number Ranges:** Grants require their own number ranges. Use this step to create and maintain them. The function is the same as the standard number range function.
- **Maintain Grant Types:** Follow the link for detailed information on configuring grant types.
- **GM Grant Control: Field Group for Authorizations;** It is possible to group fields together for authorization purposes. We deliver standard groups for this purpose. Use this step, along with the step for maintaining grant authorization groups, to specify the groups you want to use in GM.
- **Maintain Grant Authorization Types:** Authorization types control which business partners users are allowed to maintain. You need to enter an identifier and description of your authorization type. Check the relevant box to activate the type. You can also specify one or two screen fields determining maintenance authorization.
- **Maintain Grant Authorization Groups:** It is possible to group fields together for authorization purposes. We deliver standard groups for this purpose. Use this step, along with the step for maintaining field groups for authorizations, to specify the groups you want to use in GM.
- **Maintain Grant Relationships:** As with other business partner objects, you may need to define relationships between a grant and other objects. Use this step to define the number, nature, and sequence of such relationships.
- **Workflow Settings for Grant Master Data:** Use this step to activate the following Workflow settings in Grants Management (GM) master data processing:
 - o Notification of change of status
 - o Change of status approvalThe system is delivered with these settings deactivated.

SAP data elements provide the flexibility to be defined by the customer. Data elements are year independent master data that will reside and be available in the system until it is determined that it is to be flagged for deletion with archiving activity.

Sponsor

General Explanations

Sponsor maintains the financial and administrative details such as Sponsor's name, contact information, fiscal year, currency, billing instructions and funds available carry forward rules.

Requirements/Expectations

Sponsor master record will be linked with the customer master record. Sponsor (business partner) master records will be integrated with the FI-AR customer master record. If a sponsor (business partner) does not exist a request will be submitted to the FI-AR Customer Data Custodian requesting the creation of a new FI-AR customer master record. The FI-AR Customer Data Custodian will verify the customer does not exist, create a new customer master record (internal system assigned number), and email the new number to the grant creator. Central Master Data Management will execute transaction FLBPD1 Create Business Partner from Customer. In this transaction the grant creator will enter the business partner number (same number as the FI-AR customer number), grouping GPEX (external number assignment), business partner category (organization), and the customer (FI-AR customer number). This transaction will create a sponsor (business partner) with the same number as the FI-AR customer and link the sponsor (business partner) and FI-AR customer accounts.

Naming / Numbering Conventions

Numbering conventions will be determined as part of the Grants Management Blueprint effort.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

System Configuration Considerations

Before entering sponsor master data, you need to carry out certain configuration work.

Much of the functionality in Grants Management (GM) master data is the same as that for SAP Business Partners.

To create the link between the sponsor and the relevant functions in Financial Accounting (FI) and Sales and Distribution (SD), you need to enter an account group assignment. You must first create the group(s) required in FI and/or SD.

- To make the assignment, go to the GM part of the Implementation Guide (IMG) and choose *Master Data → Sponsor → Account Group Assignment*.

- o The Change View: “Business Partner: Assignment Grouping Account Groups”: Overview screen appears.
- Choose *New Entries* and enter the following:
 - o The grouping you want to use; The text for this appears in the relevant column when you save.
 - o The account group; The text for this appears in the relevant column when you save.
- Save your entries.
- Now enter the sponsor customer details by choosing *Business Partner Integration with Records Management*. The Change View: “Business Partner: Additional Definition of Customer Roles” : Overview screen appears.
- Choose *New Entries* and enter the following:
 - o The name of the object part – for example, PSSP01 (sponsor)
 - o If the role is to be a debit-side rule, check the *Debit-side y/n* checkbox.
 - o Display customer number; Check this number to have the customer number displayed in the business partner screen.
 - o Customer reference; Check this for copying.
 - o The remaining two fields are not relevant for GM.
- Save your entries.

SAP data elements provide the flexibility to be defined by the customer. Data elements are year independent master data that will reside and be available in the system until it is determined that it is to be flagged for deletion with archiving activity.

Sponsored Class

General Explanations

Sponsored Class is an object used to summarize the Organization's expenses and revenues based on the Sponsor's cost and revenue categories. Sponsored classes represent line items on the grant award and are used for sponsor reporting and budgetary control. Sponsored classes can be used on multiple grants.

Requirements/Expectations

Sponsored class will have a direct relationship to the summary level of the expenses and revenues general account numbers.

Grant sponsored program and class must be derived. Users can never directly charge either one of these GM objects. The following GM derivation rules will be configured for sponsored program and class:

- Grant + Cost Center = Sponsored Program
- Grant + Cost Center + Internal Order = Sponsored Program
- Grant + GL Account = Sponsored Class
- Grant + GL Account + Internal Order = Sponsored Class

Naming / Numbering Conventions

Sponsored class will be derived based on the general ledger account numbers.

Numbering conventions will be determined as part of the Grants Management Blueprint effort.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

System Configuration Considerations

Sponsored classes are used to group expenses and revenues together by type of financial transaction to satisfy a sponsor's reporting requirements. Sponsored programs group these sponsored class balances together by specific purposes, determined by the sponsor.

Authorization groups are used to group grants and other Grants Management (GM) objects together for authorization purposes. You need to do this for sponsored classes and programs. You also need to specify text descriptions (text IDs) for the classes/programs.

- To configure sponsored classes and programs, go to the GM part of the Implementation Guide and choose *Sponsored Class/Program* → *Program/Class Authorization Groups*.
- The *Change View: "Grants Management: Authorization Group Maintenance"*: *Overview* screen appears.
- Enter an identifier and descriptive text for the desired group(s).
- Save your entries.
- In addition, you need to enter text IDs for both sponsored programs and sponsored classes. To do this, choose the step *Maintain Text ID for Sponsored Class/Program*.
- Choose *New Entries* and enter the object, a four-character ID, and a descriptive text of up to 30 characters for each new text ID.
- Save your entries.

SAP data elements provide the flexibility to be defined by the customer. Data elements are year independent master data that will reside and be available in the system until it is determined that it is to be flagged for deletion with archiving activity.

Sponsored Program

General Explanations

Sponsored Program is an object used as a cost collector that reflects the Organization's sponsored projects. Sponsored Program is used to control and monitor transactions based on a sponsor's external programs, which may be different from an organization's own programs.

Requirements/Expectations

Grant sponsored program and class must be derived. Users can never directly charge either one of these GM objects. The following GM derivation rules will be configured for sponsored program and class:

- Grant + Cost Center = Sponsored Program
- Grant + Cost Center + Internal Order = Sponsored Program
- Grant + GL Account = Sponsored Class
- Grant + GL Account + Internal Order = Sponsored Class

Naming / Numbering Conventions

Numbering conventions will be determined as part of the Grants Management Blueprint effort.

Special Organizational Considerations

N/A

Changes to Existing Organization

End users must be educated on the appropriate use of each field.

System Configuration Considerations

Sponsored classes are used to group expenses and revenues together by type of financial transaction to satisfy a sponsor's reporting requirements. Sponsored programs group these sponsored class balances together by specific purposes, determined by the sponsor.

Authorization groups are used to group grants and other Grants Management (GM) objects together for authorization purposes. You need to do this for sponsored classes and programs. You also need to specify text descriptions (text IDs) for the classes/programs.

- To configure sponsored classes and programs, go to the GM part of the Implementation Guide and choose *Sponsored Class/Program* → *Program/Class Authorization Groups*.
- The *Change View: "Grants Management: Authorization Group Maintenance"*: *Overview* screen appears.
- Enter an identifier and descriptive text for the desired group(s).
- Save your entries.
- In addition, you need to enter text IDs for both sponsored programs and sponsored classes. To do this, choose the step *Maintain Text ID for Sponsored Class/Program*.
- Choose *New Entries* and enter the object, a four-character ID, and a descriptive text of up to 30 characters for each new text ID.
- Save your entries.

SAP data elements provide the flexibility to be defined by the customer. Data elements are year independent master data that will reside and be available in the system until it is determined that it is to be flagged for deletion with archiving activity.

Personnel Area

General Explanations

A personnel area is a specific entity within the personnel administration structure. It is a subunit of the organization and each personnel area must be unique and assigned to one company code. Personnel areas are used for reporting purposes, validating authorizations, setting up planned working times, and generating default information in employee master records and pay records. Examples of personnel areas might be:

- Major organization divisions
- Major geographical divisions

Requirements/Expectations

The organization structure is made up of the personnel areas and personnel subareas. These areas are used as the starting point for grouping parts of the State of South Carolina that are treated differently for payroll, time entry and security within the system.

Naming / Numbering Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute. Personnel Area – 4 characters, will use numerical as indicated above.

The following personnel areas and personnel subareas have been identified for the State of South Carolina: TBD

Personnel Area

Personnel Subarea

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Personnel Subarea

General Explanations

Personnel subareas are subdivisions of the personnel area. Personnel subareas are used to describe the public holiday calendars, the payroll structures, and the time management structures. Personnel subareas can also be subdivisions of the personnel area by function (i.e. human resources, finance). If employees in different

locations have different holiday calendars because the country, state or other entity has required this, each location will be in a different personnel subarea.

Requirements/Expectations

Within each personnel area, groups may be further defined by using personnel subareas. These subareas may be used to separate groups based on work schedules, locations, holiday calendars, benefit eligibility and premium payments.

Naming / Numbering Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute. Personnel Subarea – 4 characters, will use numerical as indicated above

The personnel areas and personnel subareas have been identified for the State of South Carolina in the personnel area section above.

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Employee Group

General Explanations

Employee groups are used to classify employees in general terms in the ECC system. Employee groups allow default data to be generated for payroll accounting, serve as selection criteria for reporting, and constitute an authorization check. For example, employees could be grouped by whether they are:

- Active
- Retired
- Contractors
- Terminated
- Survivors

Requirements/Expectations

Employee groups and subgroups are used to classify employees. Classifications may be based on payroll rules, time management and time evaluation, benefits, work schedules and reporting needs. The HR team has identified three employee groups that will be used: employee, trustee, and external.

Naming / Numbering Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute. Employee Group – 1 character, will use numerical as indicated above.

Examples are listed:.

<i>Employee Group</i>	<i>Employee Subgroup</i>
1 - Employee	10 - Part Time 11 - Full Time 12 - Daily
2 - Trustee	20 - Trustee
3 - External	30 31 32 33 34

Note: The employee subgroups, part time and full time, may expand to include the following:

- Hourly Part Time
- Hourly Full Time
- Salary Part Time
- Salary Full Time

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Employee Subgroup

General Explanations

Employee subgroups are subdivisions of employee groups. Employee subgroups subdivide employee groups according to the employee's status. Using the examples above, the active employee group can be subdivided into exempt and non-exempt status for overtime pay. Another subgroup can divide employees who are paid on an executive pay scale from those paid on a salaried or hourly pay scale.

Requirements/Expectations

Within each of the employee groups, additional separations are made. These subgroups may be used to identify special areas for benefits and payroll considerations.

Naming / Numbering Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute. Employee Subgroup – 2 characters, will use numerical as indicated above.

Examples are listed:.

<i>Employee Group</i>	<i>Employee Subgroup</i>
1 - Employee	10 - Part Time 11 - Full Time 12 - Daily
2 - Trustee	20 - Trustee
3 - External	30 31 32 33 34

Note: The employee subgroups, part time and full time, may expand to include the following:

- Hourly Part Time
- Hourly Full Time
- Salary Part Time
- Salary Full Time

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

Payroll Area

General Explanations

The payroll area classifies all the employees for whom payroll runs at the same time. The payroll area also defines the frequency with which an employee is paid.

Requirements/Expectations

Payroll areas are used to group employees who have the same payroll cycle and to determine the payroll periods (start and end dates).

Naming / Numbering Conventions

The naming and numbering conventions for the enterprise structure will be developed during the realization phase and will use the SAP delivered field length for each attribute. Payroll Area – 2 characters, will use numerical as indicated above.

Special Organizational Considerations

N/A

Changes to Existing Organization

N/A

System Configuration Considerations

N/A

FM Account Assignment Derivation Tool

FM Account Assignment Derivation makes sure that all Funds Management relevant documents contain a complete FM-Account Assignment (Commitment Item, Funds Center, if necessary Fund, Functional Area, Grant, Funded Program). Account Assignment Derivation tries therefore to derive values for the FM Account Assignments for every Funds Management relevant business process. Either from Accounting objects of other components or from FM Account assignment elements.

In case of logical dependencies between FM-Account assignment elements and account assignment elements of other components like FI or CO you can create rules, so that the FM-Account assignment elements don't have to be entered manually. The number of account assignment elements that have to be entered manually can be minimized. The derived values can serve as proposals and be overridden manually if necessary.

The Account Assignment Derivation consists of a series of derivation steps – the so called Derivation strategy – one after the other they are gone through and FM-Account assignments are derived from other account assignments.

All derivation steps together form the derivation strategy. The system goes through the defined rules one after the other from top to bottom. Therefore it is important to consider not only the single derivation step, but the whole derivation strategy.

Account Assignment Derivation

The derivation strategy is called in postings of other applications like FI, CO and in FM. Only the FM Account Assignments can be derived and given back to the transaction. Other objects, like business area, could be derived within the derivation tool but will not be given back.

If the Trace is active, the system shows the Testscreen when posting every time the derivation tool is called and you can check: if a value is derived and if yes, if the correct value is derived with the correct derivation rule (Button „Display Log“)

Helpful Hints

- Keep the strategy as simple as possible
- Minimize the maintaining of tables
- Advisable to have identical structures

Derivation Types:

There are different derivation types which can be used to map different logical dependencies between source and target fields.

Derivation rule:

A rule that defines which account assignment values of the source field or a combination of source fields leads to account assignment values. The fixed account assignment values of the source and target fields are maintained in one of the tables assigned in the rules.

Table lookup:

The key field of a table is used as the source field in order to fill target fields with the field content of the key field.

Assignment:

The field content of a source field or a constant can be moved to a target field.

Initialization:

A rule that clears certain field content of an account assignment. The content of a field could be cleared to derive a new value.

Enhancement:

User-Exit SAPLFMDT001 is available which can be included in the derivation strategy.

Function module:

As of Release SAP ECC Enterprise Public Sector (EA-PS 2.00) predefined Function Modules can be used to derive different target fields from certain predefined source fields.

Available Function Modules

FMDT_READ_MD_ACCOUNT_COMPANY Read Account Master Data
FMDT_READ_MD_ASSET Read Asset Master Data
FMDT_READ_MD_CMMT_ITEM Read Commitment Item Master Data
FMDT_READ_MD_COST_CENTER Read Cost Center Master Data
FMDT_READ_MD_FUND Read Fund Master Data
FMDT_READ_MD_FUNDS_CTR Read Funds Center Master Data
FMDT_READ_MD_ORDER Read Order Master Data
FMDT_READ_MD_ORDER_OPERATION Read Operation with an order
FMDT_READ_MD_ORDER_SD_HEADER Read SD Order Header Master Data

FMDT_READ_MD_ORDER_SD_ITEM Read SD Order Item Master Data
FMDT_READ_MD_WBS_ELEMENT Read WBS Element Master Data
FMDT_READ_ORDER_NP_FROM_FMZUOB Read Network Header to FM Assignment from FMZUOB
FMDT_READ_ORDER_NV_FROM_FMZUOB Read Network Activity to FM Assignment from FMZUOB
FMDT_READ_ORDER_PM_FROM_FMZUOB Read Plant Maintenance to FM Assignment from FMZUOB
FMDT_READ_ORDER_SD_FROM_FMZUOB Read Sales Distribution Order to FM Assignment from FMZUOB

Assignment

Field attributes of the target field can be controlled if a derivation rule will always be executed to derive the target value. (the former binding flag)

FMDERIVE and reversal documents

If a document is reversed, the derivation tool will be called again. If rules changed in the meantime the reversal posting will use different FM account assignments compared to the original document. If the derivation tool should no be called for reversal postings a specific rule could be created

FMDERIVE and reposting:

If a document will be reposted to FM the derivation tool will be called again. If rules changed in the meantime the reposted document will have different FM account assignments compared to the original document. If the derivation tool should no be called for reposting, the field attribute for the target fields should be: "Do not overwrite if field is already filled".

Further use of Derivation Tool in Funds Management

Budget Control System

- Posting Addresses
- Budget Addresses
- Tolerance Profile
- Controlling Objects
- Horizon Parameters for Annual and Multi Year Budgets
- Availability Control

Year-End

- Budget Carried forward
- Reassignment of FM objects

State of South Carolina Derivation Rules:

The derivation rules for the State of South Carolina will be in the Solution Center system. . The examples in the Solution Center can be used as a guide for the Development system. The order of the Derivation rules is important. The table below lists the derivation rules and source of the derivation rules

FM Actual Posting:

- Reversal Derivation Steps
- Move General Ledger Account to Cost element
- Move General Ledger Account to Commitment item
- Move Cost Element to Commitment Item
- Move Cost Center to Fund Center
- Move Cost Center Business Area to Business Area
- Move Cost Center Master record to Functional Area
- Derivation rule for Internal Order to Fund Center and Functional Area
- Derivation rule for WBS to Fund Center and Functional Area
- Table Look up of WBS to get the fund
- Derivation rule for Funded Program
- Function Module for Asset Management Posting
- Function Module for Sales Orders
- Function Module for Project System Settlement
- Assignment for Non Relevant Grant
- Move Grant to Grant
- Move General Ledger Account to Sponsor Class
- Derivation rule for Sponsor Program

Grants Management Derivation

- Derive Sponsor from Grant Master
- G/L Account + Sponsor > Sponsored Class
- G/L Account > Sponsored Class
- CO Area + Cost Ctr > Sponsored Program
- CO Area + WBS Element > Sponsored Program
- Cost Element to Sponsored Class
- Asset --> Grant Derivation – Equipment

BCS Derivation Posting Address

- Not Required

BCS Derivation Budget Address

- Assignment Fund to Fund
- Assignment Fund Center to Fund Center
- Assignment Functional Area to Functional Area
- Assignment Commitment Item to Commitment Item
- Assignment Funded Program to Funded Program

BCS Budget Workbench

- Assignment Fiscal Year
- Assignment Budget Type
- Assignment Grant

BCS Tolerance Profile

- Assignment Tolerance Profile
- Assignment tolerance Profile for

BCS Activity Groups

- Assignment of Default Activity Groups

BCS Control Objects for AVC

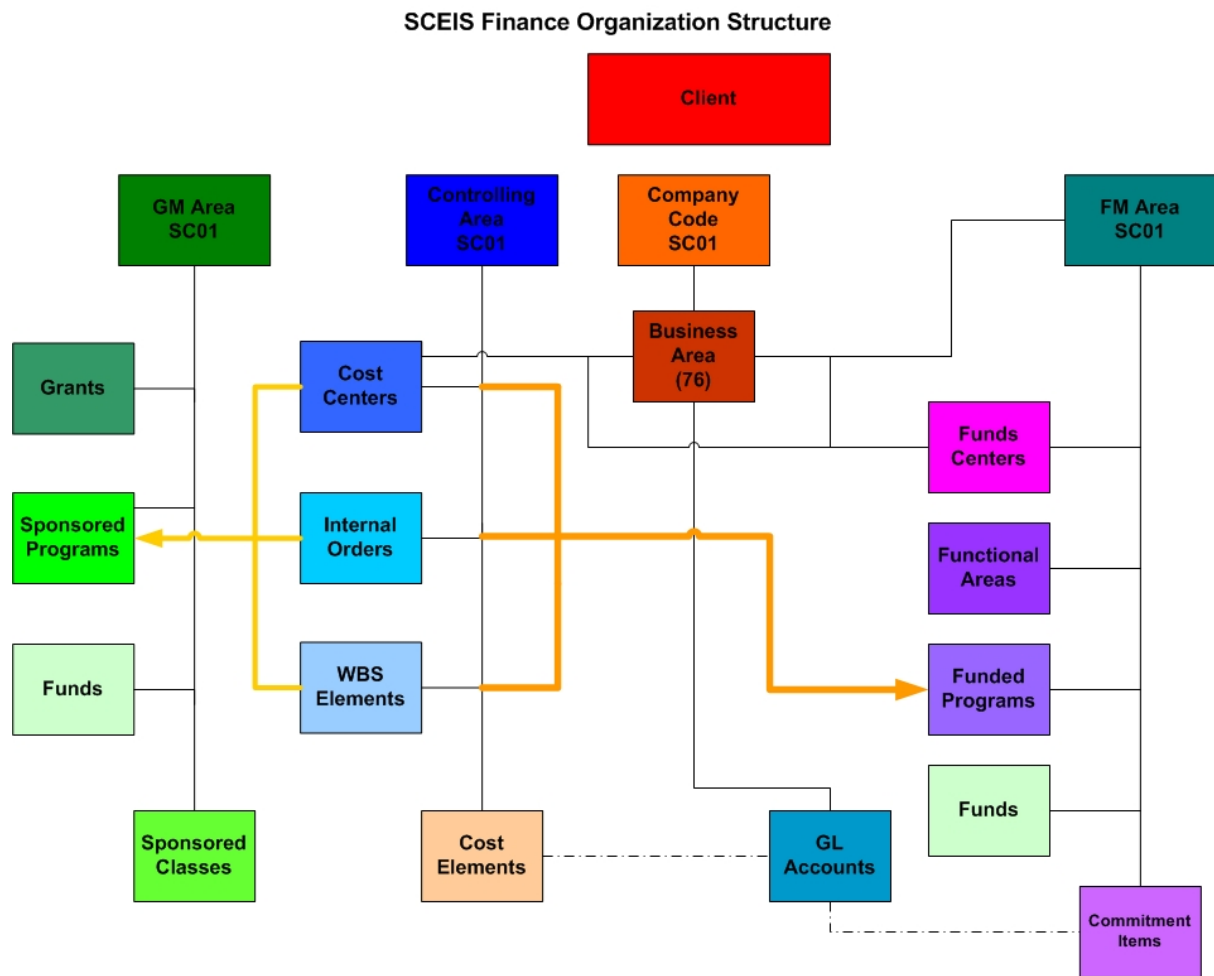
- Assignment Fund to Fund
- Assignment Fund Center to Fund Center
- Assignment commitment items to commitment item
- Assignment functional area to functional area
- Assignment grant to grant
- Assignment funded program to funded program

BCS Horizon

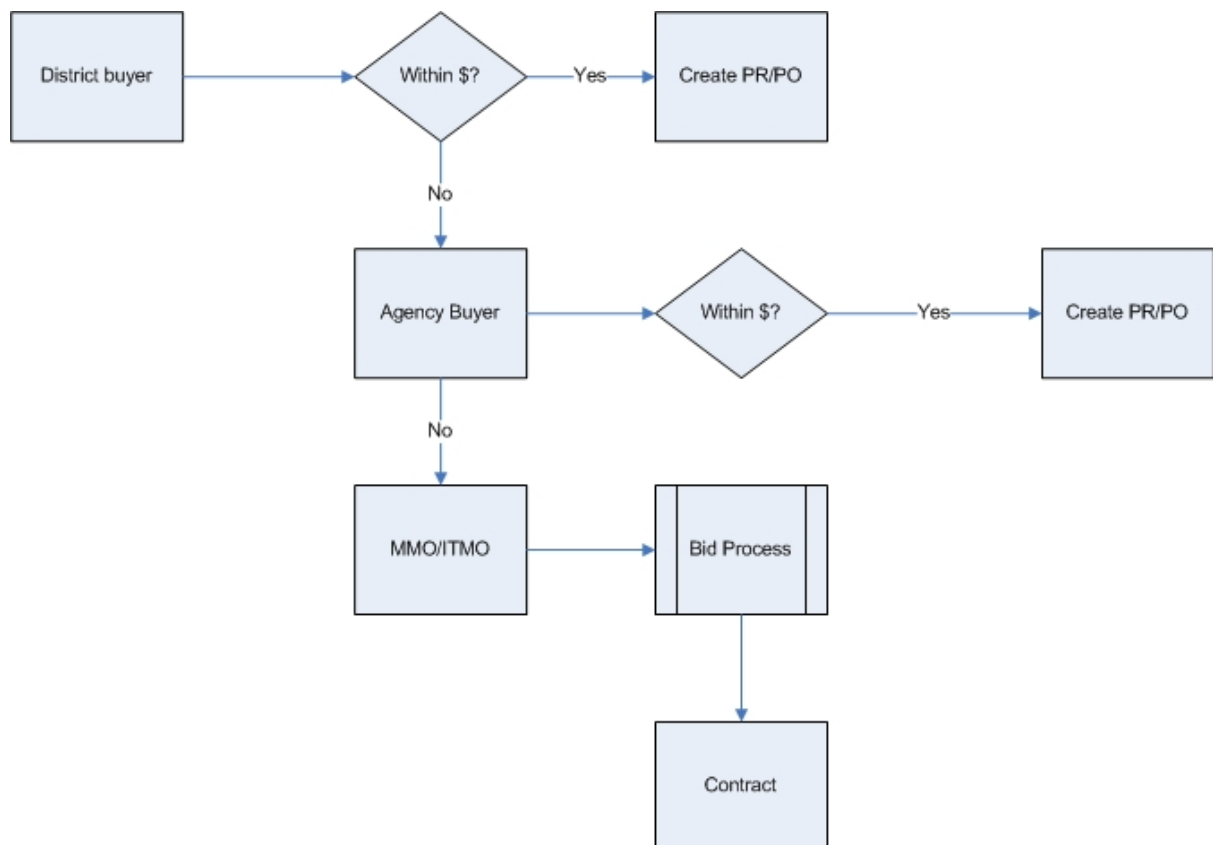
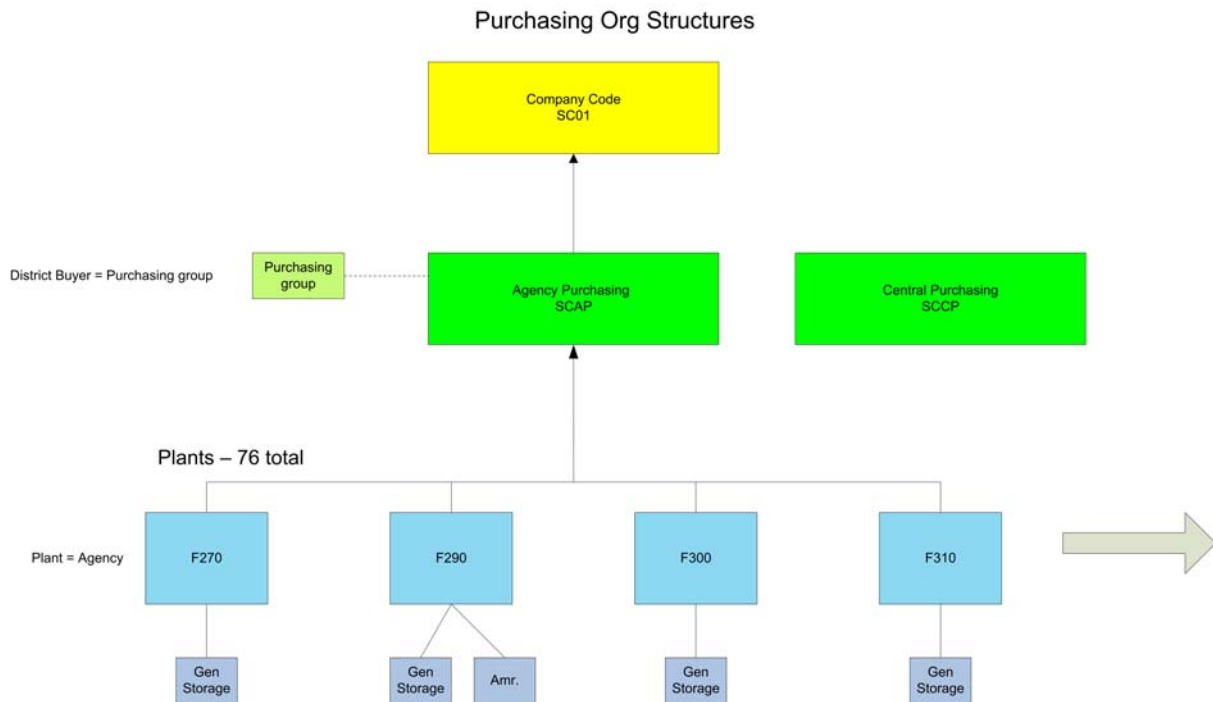
- Assignment of Annual Budget
- Assignment of Multi Year Budget

Year-End Reassignment

- BCS budget
 - Assignment of Commitment items to commitment item
 - Assignment of Fund Center to Fund Center
 - Assignment of Fund to Fund
 - Assignment of Functional Area to Functional Area
 - Assignment of Funded Program to Funded Program
- Commitment Carried Forward
 - Assignment of Commitment items to commitment item
 - Assignment of Fund Center to Fund Center
 - Assignment of Fund to Fund
 - Assignment of Functional Area to Functional Area
 - Assignment of Funded Program to Funded Program

APPENDIX I:

APPENDIX II:



APPENDIX III:

Business Area/Agency List

Business Area	Business Area Name
A010	LEG DEPT-THE SENATE
A050	LEG DEPT-HOUSE OF REPRE
A150	LEG DEPT-CDE LAWS LEG CNCL
A170	LEG DEPT-LEG PRINTING,INFO & TECH SYS
A200	LEG DEPT-LEG AUDIT COUNCIL
A850	EDUCATION OVERSIGHT COMMITTEE
B040	JUDICIAL DEPARTMENT
C050	ADMINISTRATIVE LAW JUDGES
D050	GOVERNORS OFF-E C OF S
D100	GOVERNORS OFF-SLED
D170	GOVERNORS OFF-O E P P
D200	GOVERNORS OFF-MAN & GRND
E040	LIEUTENANT GOVERNOR
E080	SECRETARY OF STATE
E120	COMPTROLLER GENERAL
E160	STATE TREASURERS OFFICE
E170	TOBACCO SETTLEMENT REV MANAGEMENT AUTH
E190	RETIREMENT SYSTEM INVESTMENT COMMISSION
E200	ATTORNEY GENERAL
E210	S C COMM ON PROSECUTION COORDINATION
E220	OFFICE OF APPELLATE DEFENSE
E230	COMMISSION ON INDIGENT DEFENSE
E240	ADJUTANT GENERAL
E250	ADJUTANT GENERAL'S OFF-STATE ACTIVE DUTY
E280	ELECTION COMMISSION
F010	BUDGET AND CONTROL BOARD
F030	BUDGET AND CONTROL BOARD
F270	B&C BD-STATE AUDITOR
F290	B&C BD-RETIREMENT
F300	B&C BD-EMPLOYEE BENEFITS
F310	B&C BD-CAPITAL EXPENDITURE FUND
F350	B&C BD-OHR-TEMP-O
H030	HIGHER EDUCATION COMM
H060	HIGHER ED TUITION GRANT COMM
H090	CITADEL
H120	CLEMSON UNIVERSITY
H150	COLLEGE OF CHARLESTON
H170	COASTAL CAROLINA UNIVERSITY
H180	FRANCIS MARION UNIVERSITY

Business Area	Business Area Name
H210	LANDER UNIVERSITY
H240	SOUTH CAROLINA STATE UNIVERSITY
H260	UNIVERSITY OF SOUTH CAROLINA
H270	USC-COLUMBIA CAMPUS
H290	USC-AIKEN CAMPUS
H340	USC-UPSTATE CAMPUS
H360	USC-BEAUFORT CAMPUS
H370	USC-LANCASTER CAMPUS
H380	USC-SALKEHATCHIE CAMPUS
H390	USC-SUMTER CAMPUS
H400	USC-UNION CAMPUS
H470	WINTHROP UNIVERSITY
H510	MEDICAL UNIV OF S C
H530	M U S C -CONSORTIUM OF COMM TEACH HOSP
H590	TECH & COMP EDUC BD
H630	EDUCATION DEPARTMENT
H660	LOTTERY EXPENDITURE ACCOUNT
H670	EDUCATIONAL TELEVISION COM
H710	WIL LOU GRAY OPPORTUN SCH
H730	VOCATIONAL REHABILITATION
H750	DEAF & BLIND SCHOOL
H790	ARCHIVES & HISTORY DEPT
H870	STATE LIBRARY
H910	ARTS COMMISSION
H950	MUSEUM COMMISSION
J020	DEPT OF HEALTH & HUMAN SERVICES
J040	HEALTH & ENVIRON CNTL DEPT
J120	MENTAL HEALTH DEPT
J160	DEPT OF DISABILITIES & SPECIAL NEEDS
J200	DEPT OF ALCOHOL & OTHER DRUG ABUSE SER
K050	DEPARTMENT OF PUBLIC SAFETY
L040	SOCIAL SERVICES DEPT
L120	JOHN DE LA HOWE SCHOOL
L240	BLIND COMMISSION
L320	HOUSING AUTHORITY
L360	HUMAN AFFAIRS COMM
L460	STATE COMMISSION FOR MINORITY AFFAIRS
N040	CORRECTIONS DEPARTMENT
N080	PROBATION PAROLE & PARDON SERVICES
N120	DEPT OF JUVENILE JUSTICE
P120	FORESTRY COMMISSION
P160	AGRICULTURE DEPARTMENT
P200	CLEMSON UNIV PUB SERV ACT

Business Area	Business Area Name
P210	SCSU PUBLIC SERVICE ACT
P240	DEPT OF NATURAL RESOURCES
P260	SEA GRANT CONSORTIUM
P280	PARKS RECREATION & TOURISM
P320	DEPARTMENT OF COMMERCE
P340	S C JOBS ECON DEV AUTHORITY
P350	S C RESOURCES AUTHORITY
P360	PATRIOTS POINT DEV AUTH
P380	SOUTH CAROLINA RESEARCH AUTHORITY
P400	S C CONSERVATION BANK
R040	PUBLIC SERVICE COMMISSION
R060	OFFICE OF REGULATORY STAFF
R080	S C WORKERS' COMPENSATION COMM
R120	STATE ACCIDENT FUND
R140	PATIENTS COMPENSATION FUND
R160	SECOND INJURY FUND
R200	INSURANCE DEPARTMENT
R230	BOARD OF FINANCIAL INSTITUTIONS
R280	CONSUMER AFFAIRS COMM
R360	DEPT OF LABOR,LICENSING,& REGULATION
R400	DEPARTMENT OF MOTOR VEHICLES
R440	DEPARTMENT OF REVENUE
R520	STATE ETHICS COMMISSION
R600	EMPLOYMENT SECURITY COMM
S600	PROCUREMENT REVIEW PANEL
U120	DEPARTMENT OF TRANSPORTATION
U150	S C TRANSPORTATION INFRASTRUCTURE BANK
U200	COUNTY TRANSPORTATION FUNDS
V040	DEBT SERVICE
W900	DUES AND CONTRIBUTIONS
X120	AID TO SUBDIVISIONS-COMPTROLLER GENERAL
X220	AID TO SUBDIVISIONS-STATE TREASURER
Y080	PUBLIC RAILWAYS COMMISSION
Y140	PORTS AUTHORITY
Y180	PUBLIC SERVICE AUTH
Y200	SOUTH CAROLINA LOTTERY COMMISSION
Z900	CENTRAL STATE FINANCE
Z950	MASTER FILE REPORT MEDIUMS
Z980	TEST AGENCY Z98
Z990	OVER-COUNTER CHECKS

APPENDIX IV:**ASSET CLASSES**

Class = 8	Asset class description
50005000	Land
50010000	Land Improvements - Non-depreciable
51005000	Land Improvements Depreciable
51005000	Infrastructure
52005000	Buildings
52010000	Building Improvements
52015000	Leasehold Improvements
52020000	Utility Plant
53005000	Construction in Progress
54005000	Motor Vehicles
54010000	Buses
54015000	Aircraft
55005000	Office Equipment
55010000	Photocopy & Fax Equipment
55015000	Data Processing Equipment
55020000	Medical, Scientific, Lab Equipment
55025000	Household, Laundry, Janitorial Equipment
55030000	Printing Equipment
55035000	Microfilm, Microfiche Equipment
55040000	Photographic/AV Equipment
55045000	Client/Patient Equipment
55050000	Agriculture Equipment
55055000	Library Books and Film
55060000	Major Tools/Other Motorized
55065000	Law Enforcement Equipment
55070000	TV/Radio Equipment
55075000	Communications Equipment
55080000	Telephone Equipment
55085000	Factory Equipment
55090000	Other Equipment
55095000	Equipment Procured for Construction
56005000	Breeding Livestock
57005000	Works of Art Non-depreciable
57010000	Works of Art Depreciable
58005000	Intangible Assets Non-depreciable
58010000	Intangible Assets Depreciable
59005000	Low Value Assets
59010000	Non-Depreciable Buildings
59015000	Non-Depreciable Building Improvements